



# The Photo Lithographer

*"A Lithographed Monthly for Lithographers"*



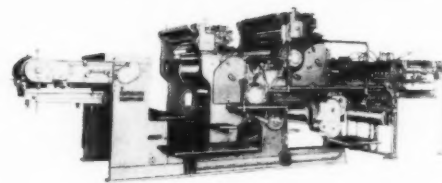
# Why...

## IS COLOR REGISTER MORE ACCURATE ON THE TWO-COLOR HOE SUPER-OFFSET PRESS?

The two-color Hoe Super-Offset Press avoids transferring the press sheet between the first and second impressions. The grippers of the impression cylinder engage the sheet and hold it securely during the entire printing cycle, until both colors have been printed.

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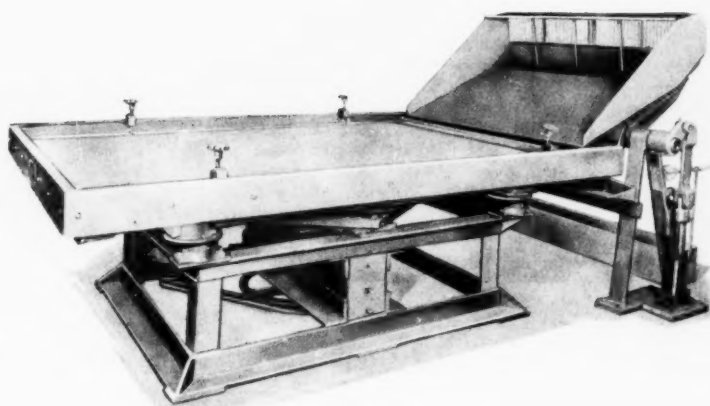




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For instance, consider

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Excelsior Paper is manufactured by the originators of moist lithographic transfer paper of the type generally used for making transfers of color printing images from one lithographic plate to another. It is sometimes referred to as Columbia Paper, but this is a misnomer, since the first moist transfer paper was made by the manufacturers of Excelsior Paper.

Transfer paper is an essential in the making of most lithographic prints. Its function of carrying the printing image from the original plate or stone to the ultimate printing surface is of vital importance to the finished product. Weak transfers make poor prints, irrespective of the quality of the original designs. Therefore it is poor economy to take chances with transfers from costly original designs in the expectation of saving a few cents on the cost of transfer paper. The use of Excelsior Paper guarantees perfect transfer results.

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Excelsior Paper is the standard by which the quality of all other moist transfer papers is generally measured. It is a product of the knowledge acquired during the manufacture of lithographic transfer papers for a period of over 50 years.

# THE SENEFELDER COMPANY, Inc.

32-34 GREENE ST.

"Everything for Lithography"

NEW YORK, N. Y.

THE PHOTO-LITHOGRAPHER

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# THE PHOTO-LITHOGRAPHER

*Published in the Interests of Lithographers  
to Increase Sales, Efficiency  
and Quality*

WALTER E. SODERSTROM  
PUBLISHER AND EDITOR

SAMUEL D. WOLFF  
ADVERTISING MANAGER

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Volume VI

JANUARY, 1938

Number 1

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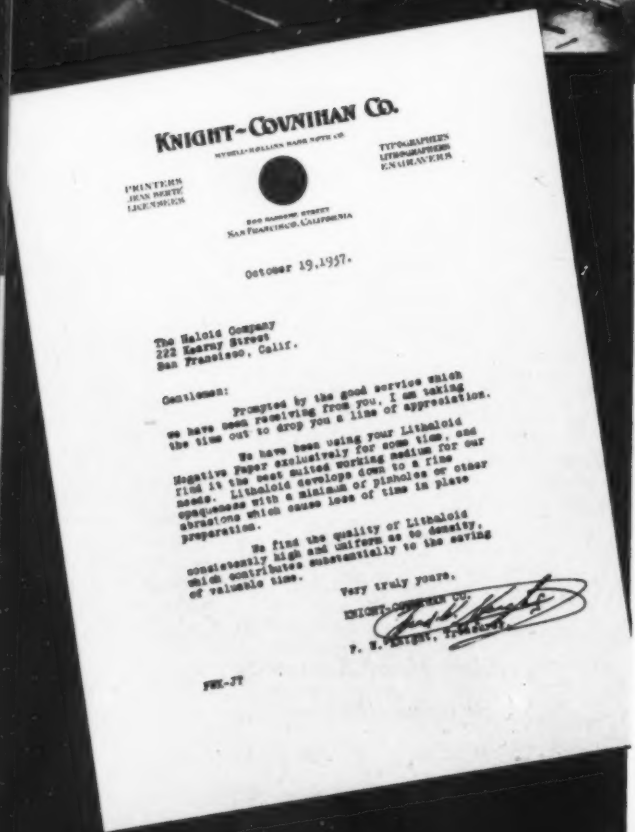
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THE PHOTO-LITHOGRAPHER



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JANUARY 1938



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They found every requirement completely satisfied with this unique paper. Because this new product will also serve others as a beacon of guidance in paper selection, the name is most appropriate — North Star Offset.

The reputation this organization bears for absolute reliability is the result of having experimentation behind us before offering products for sale. In presenting North Star Offset, we are not jumping at conclusions but are offering a paper that has successfully run the gantlet of practical and economical production.

# **NORTH STAR**

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## ★ **Monotype-Huebner Vertical Photo-Composing**

**Machine** with Non-Embossing Negative Holder and Universal Register Device—Designed for the special purpose of securing close precision in registering negatives for single and multicolor process work in lithographic offset and gravure plate making. Accuracy in positioning images on the plate is assured by rigid construction and by the use of notch-bar positioning mechanism with micrometer movement for final adjustment into position. Made in three sizes.

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**HAMMER DRY PLATE & FILM CO.**  
SAINT LOUIS

THE PHOTO-LITHOGRAPHER



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# THE PHOTO-LITHOGRAPHER

*Published in the Interests of Lithographers to Increase  
Sales, Efficiency and Quality*

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Volume VI

JANUARY, 1938

Number 1

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## 1938 WILL BE A GOOD YEAR IF—!

**Y**OU will find a decided note of optimism running through the symposium of opinions concerning the prospects for 1938, published in the two following and other pages.

This is really significant because the predictions have come, at the request of THE PHOTO-LITHOGRAPHER, from association leaders, who would surely suffer "loss of face" if their predictions were found too far out of line, and from equipment and supply people, who will continue to be the principal creditors of photo-lithographers in 1938.

You will see, too, that many of the predictions are predicated on photo-lithographers, both individually and as members of trade associations, following certain clearly defined courses of action.

This is as it should be. Photo-lithographers will prosper in 1938 in the same measure as they determine to keep on their toes, "to go places and do things." They need not tag along at the heels of any current general trend, or just keep abreast of it. They should—and can to a great extent *make their own trends*, both individually and by working in close cooperation.

A number of favorable developments within the National Association of Photo-Lithographers presage a successful year for the organization and its members.

Much closer cooperation within the Association continues to be a vital need. And cooperation with other lithographic and related associations remains a paramount requisite to the continuation of progress that, while gratifying in most ways, still leaves much to be desired. It should be kept in mind that as photo-lithography grows in popularity, it will meet stronger competition from other processes, which can be met effectively only by close concerted action.

Here is a 12-point program that, if zealously followed by every photo-lithographer, should help him to obtain his full share of profitable business in 1938:

1. Encourage uniform terms in purchase of equipment.
2. Use the trade practices adopted by the industry.
3. Cooperate with local trade association group; join the Lithographers National Association or the National Association of Photo-Lithographers; and, if a special product is the backbone of the business, also join associations sponsoring special products, such as the Label Manufacturers National Association, the Institute of Bank Stationers, etc.
4. Give complete cooperation to the Lithographic Technical Foundation.
5. Establish and maintain fair and friendly working conditions in office and shop.
6. Inventory plant and replace old and obsolete equipment.
7. Inventory methods of production and discard antiquated formulae and materials, replacing with those best able to compete with other processes in the prompt and economical production of high quality work.
8. Plan and carry through carefully worked out advertising campaigns and other promotional activities.
9. Strengthen the morale of the sales force with constructive help, regular meetings, and live leads that will come from active advertising.
10. Install and maintain a uniform cost system that has Association approval.
11. Continue to improve the quality of work turned out.
12. Resolve to make a profit from every job put through the plant.

When, due to negative business factors, rigid economies become essential, the photo-lithographer has a favorable opportunity to sell his service to new accounts and increase the size of his present accounts, provided the photo-lithographer produces a high-grade product with the natural economies of which the method is capable.

Lowering of prices with a sloppy product resulting is not economy, and dissipates the opportunity to broaden the general acceptance of a service produced for quality by an economical method.

Present conditions present a real opportunity to all quality-producing photo-lithographers.

**Paul A. Heideke, President**  
**National Association Photo-Lithographers**

1938, a banner year—the fifth since the NRA forced on us something we needed without realizing it. And now, on the threshold of 1938, we see photo-lithography advancing with ever gathering force to take a prominent place in graphic arts progress, adding new friends, new methods, and new working tools.

Associations are continuing to grow locally and nationally because they are making a valuable contribution to the industry. Born of the enthusiasm and fostered by the energy and self-sacrifice of their members, these associations look forward to a year of prosperity, with increasing rosters and a widening of their "Share Your Knowledge" program. Hail, 1938!

**J. B. Smith, Jr., President**  
**New York Photo-Lithographers Association**

Business management is threatened with an accentuation of the problem that we have long had with us—(1) the proper estimation of the volume of business available and (2) the appraisal of the conditions under which distribution of such business must be effected. These problems call for the continuous assembly of factual data and the constant revamping of sales policies in the light of new facts regarding the flow of industry's products into the channels of consumption.

Among the label manufacturers we are concentrating upon the more complete analysis and the better understanding of trade activity in order that members of the Association may not indulge in futile planning or wasteful expenditures through misjudging the market.

Intelligent pricing and effective distribution can be accomplished by using the advantages which the trade association offers. The label manufacturers are preparing to make even greater use of such facilities in 1938 to solve the problems of our economic situation.

**Charles R. Cosby, Executive Secretary**  
**Label Manufacturers National Association**  
**New York**

# OUTLOOK

**As it appears to executives in litho-  
equipment and supply companies**



For the lithographic industry 1937 has been a progressive and profitable year and we view the coming year with confidence. The growing understanding and recognition of the versatility and wide adaptability of the lithographic process coupled with the high standard of quality and reasonable costs is reflected in the expanded volume of lithographic production throughout the country.

Since the lithographic industry is essentially a service industry with little or no production for stock, it has no problem of inventory reduction such as faces certain other industries in the current period of recession. Lithographic volume is sensitive to major changes in general business activity but in view of the rather general agreement that the current recession is now scraping bottom it appears probable that the expansion in lithographic sales will shortly be resumed.

Enlargement of plant facilities and the introduction of modern, high-speed equipment are a definite expression of belief on the part of leading lithographers in the immediate and future stability and progress of their own industry.

The industry through its national association, as well as individual lithographers through their own promotional activities, is carrying on a successful educational program which is building good-will among the purchasers of graphic arts materials. At the same time the Lithographic Technical Foundation, by promoting and developing better production methods which have helped to reduce costs, has made lithography a more economical medium for the production of staple products and advertising and sales promotional material. Thus, the industry finds itself in position to take full advantage of the increased opportunities for progress which the coming year should bring.

In the field of window display, for example, the recent publication by the Advertising Research Foundation of its extensive research study "Window Display Circulation and Market Coverage" points the way to the development of window display as a distinct advertising medium with known circulation values and provable costs per one thousand circulation.

**Lithographers National Association, Inc.**  
**New York**

**THE PHOTO-LITHOGRAPHER**

# FOR 1938

graphic trade associations, and in serving the lithographic industry.



The Agfa Ansco Corporation extends cordial greetings to its many friends in the photo-lithographic trade and sends sincere wishes for a New Year that will be both happy and prosperous.

After one of the best years in 1937 that the camera and film industry in the United States has ever had, Agfa Ansco is looking toward 1938 optimistically, confident that the trends of 1937 will be extended, and that continued business gains, as well as further technical improvements, will be common throughout the field of photo-lithography during 1938.

**Karl H. Foesten, Manager, Reproduction Sales Dept.  
Agfa Ansco Corporation**

Our own experience as manufacturers of offset paper gives us the profound conviction that lithography is an industry whose great destiny lies ahead. Its immediate prospects are of course inseparably bound up with the trend of business in general. The economic stage seems to us to be set for a sustained forward movement, provided business can be relieved from political harassment and uncertainty. To this end the influential lithographic industry should make its weight felt in 1938.

**C. R. Greer  
The Beckett Paper Company**

At a time when there is a tendency to curtail advertising activity, the opportunity of those who intensify their selling efforts through all mediums is enhanced. The lithographic industry can be of increasing aid to advertisers. Every carefully prepared sales campaign should be productive of results, and to overcome the negative factors in conditions today, a better selling job is necessary. There must be built up in the minds of buyers the realization that technical advances made in lithography equip the trade to offer more to its customers.

**Alexander Thompson, Jr.  
The Champion Paper and Fibre Co.**

Basic conditions are sound. The main disturbance to our economic order is due to lack of confidence on the part of business and lack of faith in the future, part of which is undoubtedly due to the restrictive taxation on business and private enterprise. There seems a distinct

hope that there will be a revision in the tax on undistributed earnings, which will tend to help the smaller business man particularly, and also a revision in the tax on capital gains, which now interfere with the natural economic flow.

If a satisfactory solution is reached and the country is placed on a basis of limiting its expenditures to its income, with the absence of retaliation or reprisal on the part of either business or government, and indeed with a constructive effort and co-operation on the part of both, there is no reason why American business should not resume the function it has played so well in the past.

**Gerard Swope, President  
General Electric Company**

Manufacturers of materials used by the lithographic industry are constantly striving through research to develop new and improved products. Upon the results obtained in lowering costs, speeding up work, or increasing convenience of operation, depend their success in marketing these products to lithographers.

In a time of business recession, therefore, the lithographer should make a determined effort to try out every product which promises an improvement in processing with resultant lower costs. By the correct use of a new or improved material, it may be possible to secure business which might otherwise be lost to a competitive process.

**John B. Hartnett  
The Haloid Company**

1938 will demand speedy production in all lines. But to justify this speed the quality of things produced must measure up to a higher standard than ever before.

Harris-Seybold-Potter survey of business indicates that 1938 will find the application of many new advancements in printing equipment and a resultant demand for a greater distribution of what this modern equipment will produce.

The Graphic Arts, with its use of Offset, will enjoy a large volume of production because it is prepared to do fast, efficient work on equipment built for accuracy and speed."

Our survey shows that many plants are now planning a rehabilitation of their pressroom program. They are basing their modernization plans both on prospects for more business and upon the experience of those other printing plants that have already prepared for expansion. It means that Offset in particular will continue to grow in acceptance among those who recognize that achievement will follow pressroom modernization.

Business is definitely going forward. But the winner will need to show a progressive spirit, new ideas, sound thinking and integrity.

**H. A. Porter, Vice President in Charge of Sales  
Harris-Seybold-Potter Company**

*(Continued on page 69)*





THE UNIVERSITY OF CINCINNATI CAMPUS

Arrow at Upper Left Indicates Baldwin Hall, in Which the Lithographic Technical Foundation's Research Laboratory Is Located.

## THE LITHOGRAPHIC RESEARCH LABORATORY

By ROBERT F. REED

Director, Department of Lithographic Research  
Lithographic Technical Foundation

**R**ESearch in industry, as a deliberate business policy, is not much more than fifty years old. It proved its value by raising Germany to the foremost position in industrial development before the war, and has since been recognized by business throughout the world as one of its most valuable assets. This is shown by the fact that about 550 companies in the United States maintained research laboratories in 1928, and this number has since increased.

During the recent depression, only 24 per cent of companies conducting chemical research reduced their research budgets in dollars, and only about 10 per cent in proportion to sales. At the same time 67 per cent increased their research budgets in dollars, realizing that reduction of costs and the development of new products constituted the best insurance against economic calamity.

### CO-OPERATIVE RESEARCH

Present-day competition exists between industries as well as between individual firms in the same industry. Witness, for example, the development of the mechanical refrigerator and its effect on the ice industry. Incidentally, ice manufacturers have not been put out of business

but have been forced to look for new outlets for their product, while the mechanical refrigerator has opened up entirely new territory and created new business.

Competition between industries has resulted in a new phenomenon, cooperative research, in which individual companies who formerly considered each other their only competitors, have banded together, pooled their knowledge, and conducted research for the benefit of their industry as a whole.

At the present time more than forty trade associations are engaged in cooperative research, and either maintain their own laboratories or finance investigations by commercial research organizations or in universities and government laboratories. So great has been the benefit of cooperative research in advancing the position of the cooperating industry and in breaking down the secretive, mysterious, "closed door" attitude, that association research is rapidly increasing both in the number of associations and in dollars spent.

Cooperative research does not conflict with research carried on by individual firms in the industry. Experience over a period of years has shown that cooperative research is a necessary adjunct to private research since it enables



an effective attack on fundamental problems underlying the whole industry which the individual firms could not afford, or which would constitute wasteful duplication of effort even if they could.

Association research has proven most valuable in industries composed of large numbers of relatively small companies which individually could not support effective programs of fundamental research. Association research has also been most helpful to individual companies who maintain laboratories for the solution of their own manufacturing problems.

### RESEARCH IN LITHOGRAPHY

It was with a clear vision of the history and trends in industry that the Lithographic Technical Foundation was organized in 1924 to conduct cooperative research and technical education.

The Lithographic Research Laboratory began to function March 1, 1925, as a division of the University of Cincinnati's Institute of Scientific Research. By agreement, the University has furnished laboratory space, standard laboratory equipment, water, heat, light, power and gas, at no cost to the Foundation. The Foundation has supplied funds to cover salaries, and the purchase of supplies and non-standard laboratory equipment. Overhead costs and routine business management have been carried by the University without charge.

Formulation of the research program is in the hands of a Research Committee representing the lithographic industry, and appointed by the Board of Directors of the Foundation. The director of the Institute of Scientific

Research, Dean Herman Schneider, is responsible for administration, and it is to him that the Research Director is responsible for conduct of the laboratory. The program adopted by the Research Committee is strictly adhered to and all suggestions for problems requiring research are first submitted to the Research Committee before such problems are added to the program.

From 1925 to 1927 the Lithographic Research Laboratory occupied one medium sized and two small rooms in the University's Chemistry Building. In 1927 greatly improved quarters were provided in Baldwin Hall, which the Laboratory has occupied ever since. These quarters consist of a main room 31 x 46 feet, and an adjoining dark room 9½ x 14½ feet.

### LABORATORY EQUIPMENT

Research on lithographic problems requires a variety of scientific and practical equipment. The present equipment is valued at about \$20,000 and includes a process camera, complete photographic and plate-making equipment, a Harris CL offset press, a number of scientific instruments, library, and office equipment. The library of scientific and trade publications alone represents an outlay of more than \$3000. A general idea of the research laboratory and its equipment may be gained from the accompanying illustrations.

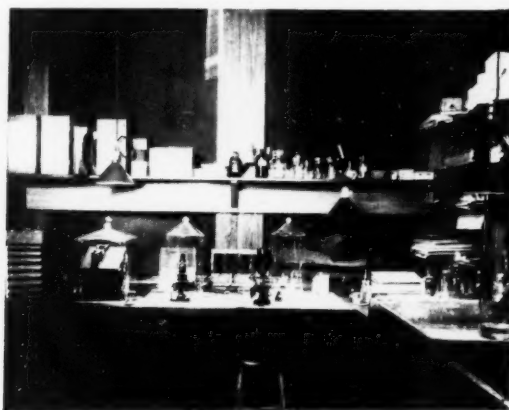
### THE RESEARCH STAFF

In addition to the Director the research staff consists of three full-time workers, all with post-graduate degrees and a wide experience in chemistry or engineering. These



Keeping of Complete Records of Experiments is an Essential Part of Research.

Experiments in Process Photography Are Made with Practical Camera Equipment.



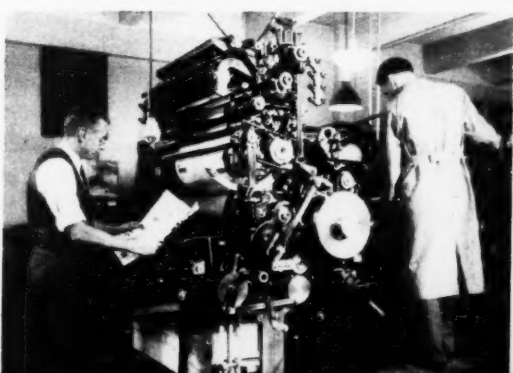
Photographic and Printing Plate Research Require First Class Optical Equipment.

Each New Development in Printing Plates, Fountain Solutions, Inks, and Blankets is Given a "Road Test" on our Harris CL Press.



Chemical and Photo-Electric Research Go On Side by Side.

Photographic Studies Are Carried Out Under Exact Technical Control.





A Technical Library and Information Files are an Indispensable Part of the Laboratory Facilities.



Numerous Chemicals Are Necessary for Work on the Various Problems.

Analytical Work Requires a Sensitive Chemical Balance.



workers conduct research to improve processes and materials already in use, and on the development of totally new processes, materials, and control methods. Special problems are given to graduate students for research under the guidance of the Director or of one of the staff. The laboratory is in operation throughout the year and visitors interested in the technical problems of lithography are welcome.

#### RELATIVE IMPORTANCE OF RESEARCH SUBJECTS

In a recent questionnaire member shops were asked to indicate their opinions as to the relative importance of the various subjects for research by the Lithographic Research Department. The order of importance as indicated by the replies was as follows:

1. Printing Plates
2. Paper and Paper Conditioning
3. Drying of Inks
4. Halftone Photography
5. Color-Separation Photography
6. Offset Blankets
7. Plate Graining

It is more than accident that this order corresponds exactly to that given the same list of subjects by the Research Committee at its meeting in February, 1937, and shows how closely the committee is in touch with technology and developments in the industry.

Active work is now in progress on the first four subjects and is definitely planned for the remainder. A plate-graining machine has recently been donated by a member firm and a study of plate graining will be started as soon as certain alterations can be made in this equipment. It is not intended, however, to limit the study to conventional methods, but the entire field of possibilities will be investigated.

Part of the accomplishments of the Lithographic Research Laboratory during the twelve years of its existence

are available in 19 research and technical bulletins. These represent the results of research which have practical value at the present time. In addition to the published work a valuable groundwork has been laid and still other knowledge gained that will have an important bearing upon future developments.

#### WHAT ABOUT THE FUTURE?

In looking toward the future the means for technical advancement of the lithographic industry should be carefully considered by every one of its members. It is not enough just to maintain the status quo.

A survey of the chemical industry in 1931 by the National Research Council showed that one third of the companies were devoting more than 5 per cent of sales income to research, and in nearly half of these the amount was 10 per cent or more. It has since been shown that the companies most active in research maintained the best records of earnings and dividends during the depression and have placed themselves in a position to earn increased profits even at high wage and low price levels. The chemical industry knows the value of research because it is largely the result of research. The older industries have accomplished a great deal by hit-or-miss methods but are rapidly realizing the value of modern research methods in insuring further advances.

#### HOW MUCH FOR LITHOGRAPHIC RESEARCH?

How much, then, is the lithographic industry justified in spending for research? According to Dr. F. B. Jewett, Director of the Bell Telephone Laboratories which employ between four and five thousand people in research and development, many industries have found the industrial research laboratory "one of the most valuable, if not the most valuable, part of the industry." This is because "the industrial research laboratory is the place where progress can be made most rapidly, most cheaply, and with the greatest assurance of avoiding missteps."

# MAKING YOUR PEACE WITH UNCLE SAM

**T**HE following suggestions for preparing year-end Federal tax returns may be of help to photo-lithographers whose fiscal years correspond with the calendar year.

## DEPRECIATION DEDUCTIONS

First of all, don't permit an over-zealous accountant to prepare a return that cannot be substantiated in every detail. Such a return may seem like a saving now but, if not backed with adequate proof next year when the Government may investigate it, the levying of penalties and interest may make such a return "expensive business," indeed.

The return of the greatest importance—and the one that probably is most difficult to prepare—is the Corporation Income and Excess Profits Tax Return, which includes taxes on normal income, excess profits, and undistributed profits. Here are some of the various factors to be kept in mind about these taxes:

### NORMAL INCOME TAX

This tax is at the rate of 8 per cent on the first \$2,000 of a corporation's net profits; 11 per cent on the excess over \$2,000 and up to \$15,000; 13 per cent on the excess over \$15,000 and up to \$40,000; 15 per cent on the excess over \$40,000. Certain deductions are permissible, of which those worthy of special comment are as follows:

There is no absolute rule as to what constitutes the production life of a machine. Depreciation is based not only upon actual wear and tear but upon obsolescence and inadequacy. With new machines and new improvements appearing on the market it may be necessary for a lithographer to retire a press, for instance, in six or eight years. Considering all depreciation factors, about ten years constitutes the average production life of any major piece of equipment.

The Government requires a lithographer to show by his records what rate of depreciation he is entitled to. If the lithographer does not have proper records to prove the turnover of his equipment, the Government will allow only 6 2/3 per cent for depreciation. Therefore, if you claim more than the 6 2/3 per cent depreciation, be sure that you have records to verify your claim.

### COMPENSATION OF OFFICERS

Since the businesses operated by many photo-lithographers are closed corporations, controlled by the officers, there may be a temptation to adjust tax returns by allotting too large a part of the net income to executive salaries or bonuses, both of which are deductible. The Government is very likely to question such deductions if

*(Continued on page 73)*

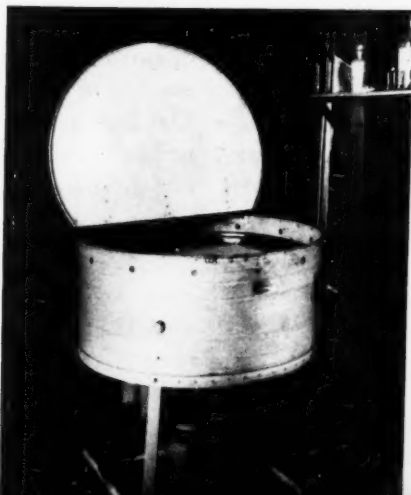
If this is true, the company and the industry of the future will be the one with properly coordinated research facilities and a technically minded management.

The one sure way for the lithographic industry to maintain and improve its competitive position is to maintain an efficient research department with adequate staff and facilities and a well thought out program. This, however, is not the whole story. The results of cooperative research must be put into practice by the industry. Each

shop should therefore maintain in its employ one or more men who have the right mental attitude and who can apply the results of cooperative research in improving processes and in solving manufacturing problems.

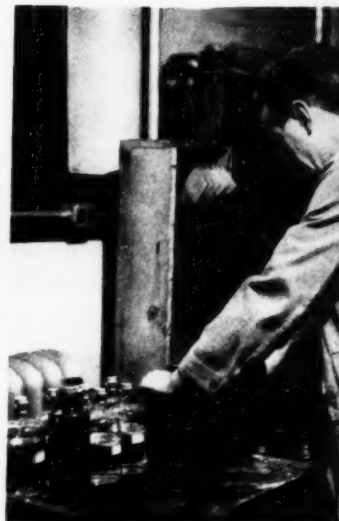
An effective program of research and application in lithography involves what to some may seem an unjustifiable expenditure, but experience has shown that research is far more than an experiment or a hobby. It is a factor of vital importance to industrial well-being.

Experimental Press Plates  
Are Made with Standard  
Shop Equipment.



Experimental  
Inks Are  
Ground on  
Our J.H. Day  
Three-Roller  
Mill.

Laboratory  
Tests Lead  
to Improved  
Offset Blank-  
ets and  
Blanket  
Washes.





Creating

3<sup>rd</sup>

**DIMENSION**  
in *Layouts*  
By EDWARD C. STERRY

**R**EMEMBER the old family stereoscope that used to be part of the furniture? Remember how grandpa's beard used to stand out like a haystack, and . . . oh, pardon me, perhaps I am reminiscing a little too far back. At any rate it was quite a thrill at that time to look at pictures with that much desired third dimension.

The movies have been attempting to produce third dimension for years. But the closest they ever came to it in a practical way was to hand each one in the audience a pair of glorified glasses through which to view the picture. In some magical manner the figures literally "walked out in front." And thus, with the combination of motion, sound and third dimension there seemed nothing to be desired. But it only worked on certain pictures. And who wanted to sit all through the show with a colored "monocle" up to his eye, anyway?

However, stereoscopic photography is almost as old as photography itself. Sir Charles Wheatstone, a professor in Kings College, London, England, produced the first stereoscope in 1838. Some improvements on the original were made later by Sir David Brewster and others. But the year 1860 still found it a clumsy and expensive device.

Typefounders have not been unmindful of the fascination in third dimension, and have from time to time produced a type face of this character. One of the most stable of these is Beton Open, a European product (*illustrated*).

Present Benday shading mediums also offer much help in attaining third dimension in layout for photo-offset.

Craft-tint sheets and the like are especially useful in building up unusual and attractive display effects.

That coveted third dimension is something for which advertisers, photographers, layout men, artists and typographers are constantly striving. So far as layouts are concerned I think we too often "miss the boat" in attaining third dimension. Of course, it does seem a bit difficult to attain much third dimension with nothing but a flat surface and lines to work with. And yet, it is surprising, as the accompanying examples show, how easily third dimension in a layout can be accomplished.

In trying to ascertain the attention-getting element found in many advertisements in our national magazines and trade papers, third dimension is invariably responsible. This effect is often attained through the use of color, with receding colors such as blues and purples in the background. Light Benday tints overprinted with major colors also serve to produce third dimension.

In black and white work third dimension is more frequently created through mechanical shading devices and the use of a technique producing certain definite planes. Cutting type panels into the corner of a half-tone or lapping one half-tone over the corner of another, creating the effect of superimposing, brings third dimension to the eye.

Every good layout (if at all possible) should possess an effect of third dimension even in the simplest form. It is just as important as balance, harmony, proportion, rhythm, etc. (It is amazing how few authors of good books

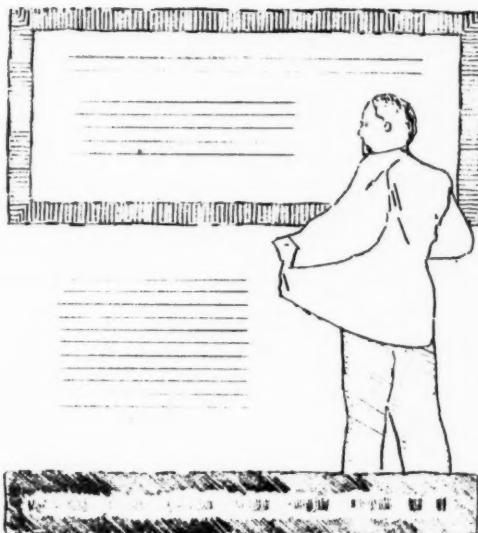
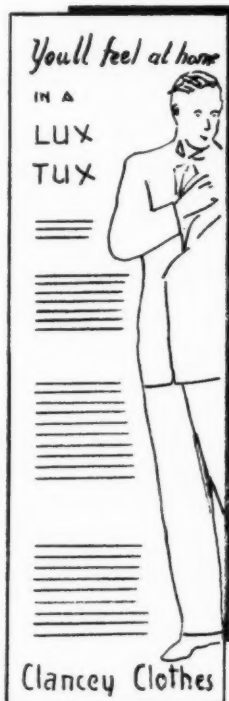


on layout touch upon third dimension, or even mention it.) Third dimension will attract the eye in a piece of photo-offset work just as it does in a good photograph. A photo which lacks third dimension in its composition looks flat and inanimate. A typographical layout reacts exactly the same way to the eye and the mind.

Photo-offset offers unlimited possibilities in attaining third dimension in layout. The artist's or layout man's skill is the only limitation in creating third dimension, and working out mechanical shadings, superimposing, etc. The sky is the limit for third dimension layout in photo-offset because the process is not hampered by any mechanical hurdles.

Let's go back to the days of the stereoscope. Let every layout man put an imaginary stereoscope in his kit. Real ones like we used to know are almost extinct. Let him imagine he is taking a squint at a few bathing beauties before he prepares any layout. Third dimension will then become an integral part of his work.

*Figure appears to be coming forward through the back of the advertisement, suggesting third dimension.*



*Three plane third dimension. Layout made from an advertisement by Reuben H. Donnelley Co., appearing in Printers Ink. An exceptionally good example of simple third dimension.*

**Values**

*Third dimension effect attained through parallel line shading.*

**PAPER**

*Benday shading helps create third dimension.*

**MASTER**

*A back shadow produces a second plane in this instance.*

**ABC**

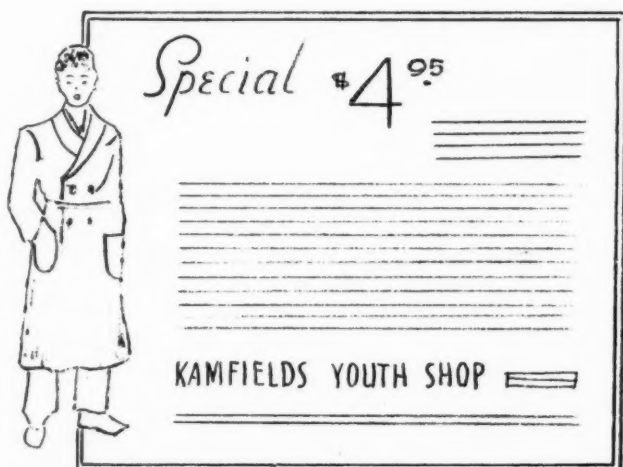
**Flex**

*Beton Open Type. A very practical third dimension typeface sold by Bauer Type Foundry. Free of hair lines and intricate serifs Beton Open is an ideal letter for photo-offset reproduction.*

*Flex is one of the newer third dimension types. Used for titling letters and book jackets. Cast in Holland and sold by the Continental Type Foundry.*

**OFFSET**

*A simple method of producing third dimension by stopping the horizontal lines at the right of the letters.*



*Reverse of Fig. AA. The illustration appears to be in front of the ad.*

# COMPLETE \$44,000 WINDOW DISPLAY RESEARCH

**A** REPORT that gives a tested procedure for selecting and verifying window display circulation and that shows how to determine the cost of such circulation has been made public by the Advertising Research Foundation of the Association of National Advertisers and the American Association of Advertising Agencies, in co-operation with the Lithographers National Association under the title of "Window Display Circulation and Market Coverage."

Four definite conclusions on window display advertising given in the report are: (1) the circulation of window display advertising can be evaluated by uniform methods; (2) the volume and quality of the circulation in any market can be defined; (3) varying degrees of intensity of circulation can be obtained, and (4) the cost of window display circulation can be determined.

## CULMINATES TWO YEAR NATIONAL RESEARCH

The report is based on researches conducted in all sections of the country in nineteen cities and communities by the Advertising Research Foundation in co-operation with the Lithographers National Association and other groups interested in obtaining a scientific measurement of window display advertising. The research on which it was based was begun about two years ago by the Foundation as a part of a general research program.

The report is in line with the efforts of the Foundation (as it represents the buyers of advertising and advertising agents) to eliminate waste wherever possible and to reduce advertising to as near a science as can be done. It was this desire which led to the establishment many years ago of the Audit Bureau of Circulation, and, in later years, to the Controlled Circulation Audit, the Cooperative Analysis of Broadcasting, and the Traffic Audit Bureau. The idea of finding a measuring stick for window display advertising met with the hearty cooperation of the sellers in that field, and the report is therefore a product of a united effort.

The practical value of the study is indicated in the report by the following statement:

"From the information contained in this report an advertiser can create for himself a record or guide which will show him for any city, of 450,000 population or less, the number of displays he needs for each desired intensity of distribution, an estimate of the circulation each intensity should generate, and the cost per thousand circulation."

## EMINENT AUTHORITIES COLLABORATED

The actual research work was carried on under the direction of Dr. Miller McClintock and Albert E. Haase, who have been closely associated in the application of

traffic data to advertising and merchandising problems. Field work and analysis of its results were under the direction of John Paver, widely known for his traffic studies in the outdoor advertising industry and other fields.

The work was undertaken by Messrs. McClintock, Haase, and Paver with the advice and counsel of committees representing the Association of National Advertisers, the American Association of Advertising Agencies, and the Lithographers National Association.

## \$44,000 WORTH OF CO-OPERATION

Copies of the report are already in the hands of members of the Association of National Advertisers, the Association of Advertising Agencies, the Lithographers National Association, and other groups, businesses and individuals who subscribed the funds necessary to carry on this research—a total of slightly more than \$44,000.

The report itself covers eighty-eight pages in book form, size eleven by fourteen inches. It contains numerous charts and maps. A number of the maps are done in three color lithography.

A limited number of copies are available to the public at a price of ten dollars the copy through the National Window Display Research at the offices of the Association of National Advertisers, 330 West 42d St., New York.

## Window Displays Now Can Be Used on Basis of Proved Facts

Among the outstanding statements on the findings of this study, as given in the report, are the following:

1. Window display has two functions: a primary one of point-of-purchase advertising, and a secondary one of delivery of different degrees of general market coverage for the advertiser's message.
2. Window display circulation depends on the movement of near side sidewalk pedestrians.
3. Pedestrian movement has such relatively stable characteristics that it may be used to establish the volume and quality of the retail structure of a market.
4. Window display spaces can be inventoried and classified by types of retail outlets, by sizes, and by their position in relation to traffic.
5. The retail pattern or structure of a market can be broken down into definite types of business districts, namely, central business, secondary, neighborhood, and outlying districts.
6. Window display districts can be created out of business districts.
7. Various degrees of intensity of window display circulation can be obtained by an advertiser in each of these display districts and consequently in each market.



# Why

## THE RAPID GROWTH OF PHOTO-LITHOGRAPHY?

**W**HEN the advantages of photo-lithography are well understood, there is no question as to the extent of the many benefits to be derived from it.

The reasons for the rapid growth of photo-lithography and for its selection to do many exacting jobs of reproduction are not obscure, as they were in the case of the apologetic fellow who appeared before the judge to have his name changed.

"And what is your name," the judge inquired.

"Elmer Smells, your Honor," the applicant replied.

"Well," said the judge, smiling, "I don't blame you for wanting to change it. What name would you like to adopt?"

"John Smells, your Honor," stammered the applicant.

In that case there was agreement as to the need but not as to the reason back of the need!

Photo-lithography appeals first to the profit motive. It has many advantages peculiar to itself in the way of low cost without attendant cheapness of appearance. It also appeals to discriminating buyers because of intrinsic qualities that can be obtained by no other process. These advantages I will describe as I go along.

Before I describe the special benefits you can obtain from this rapidly-growing process of photo-lithography, let me briefly outline the three major processes in the graphic arts that are most frequently used commercially:

1. Letterpress printing
2. Photo-Lithography
3. Gravure

These processes have been compared aptly to elevated, surface, and subway systems:—

Letterpress is likened to the elevated because the product comes from the impression of paper on a relief or raised surface consisting of type and engravings.

Photo-lithography is comparable with a surface system because the inked design is transferred to the paper from a planographic surface—a surface that to the layman seems absolutely smooth.

Gravure is called the subway method because the

image to be transferred to the paper is etched below the surface of the plate.

(Number 106 of "Westvaco Inspirations for Printers," published by West Virginia Pulp & Paper Company, contains drawings illustrating these fundamentals. The drawings are models of simplicity and clear explanation. Similar drawings shown at this point in the talk, should be very helpful.)

In one sense, lithography is entitled to comparison with the subway system because in many kinds of work it travels most rapidly from inception of the idea to the printed exposition of it, and at the lowest cost.

Each of these three major graphic arts processes has its advantages and disadvantages according to the nature of the individual requirement. The astute buyer is familiar with all of these advantages and disadvantages; he can select the process best fitted to do each particular job.

No doubt all of you are well acquainted with the age-honored process of letterpress printing. And since gravure is used mostly for very long runs and for newspaper work, I will confine myself to an explanation of the advantages of the photo-lithographic process.

### A Process of Many Names

A clear understanding of photo-lithography requires, first, a clarification of terminology.

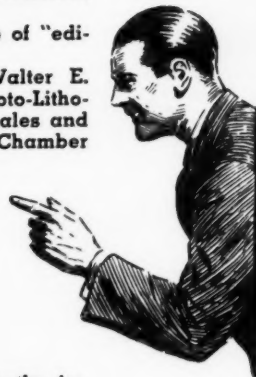
It is sometimes called planography, offset, photo-

One of the best ways to educate the buyers of printing in any community in the benefits of photo-lithography is by means of talks before groups assembled from business clubs, Chambers of Commerce, and other organizations.

Such talks have the great help of "editorial sanction," so to speak.

This address, delivered by Walter E. Soderstrom, publisher of The Photo-Lithographer, before members of the Sales and Advertising Managers Division, Chamber of Commerce, Trenton, N. J., at a luncheon meeting the early part of December, is published with the thought that it may encourage photo-lithographers to take advantage of similar opportunities. It might be useful also in the preparation of direct-by-mail promotional material.

Interest in such a talk is greatly increased when plenty of carefully chosen illustrative material is shown at appropriate points during the talk.





offset, lithography, and other trade names. Some of these names have been adopted by individual companies or groups of photo-lithographers so that they can benefit from a coined trade name. Basically, however, photo-lithography embraces all the minor variations in the process and describes accurately the fundamental techniques as used commercially today.

The term photo-lithography came into being when the camera was first used to effect a revolutionary step forward in lithography. Before that time lithographers etched images on heavy, absorbent stones. Then either the stones were placed on a slow-moving flat-bed press, or the images were transferred from the stones to a metal plate which, in turn, was clamped around a cylinder on press, thus taking the place of the actual stones in the printing operation.

From an advertising point of view it was good business for the lithographers who first took up the new system to call themselves photo-lithographers. Today practically every lithographer doing commercial work uses cameras as an integral part of the process. Therefore photo-lithography is the legitimate name for the process, and buyers should not be confused by arbitrary and isolated exceptions into thinking that photo-lithography consists of many deviations from the basic principles.

#### The Fundamental Basis

Even with the substitution in recent years of metal plates for the heavy limestones, one of the fundamentals on which the process is based remains the same—the antipathy of grease and water for each other.

Originally the design on the compactly textured and absorbent limestone, was covered with an especially greasy ink. Then it was washed all over with water, which sank into all parts of the stone not defended by the ink-covered design. Consequently, when an impression on paper was made, only the ink-retaining design was transferred.

Today the absorbent qualities of the limestone are simulated in the metal plate by means of graining. This consists of surfacing the metal in such a way that an infinite number of minute pockets are formed. These pockets help in the retention of the inked design, as well as in the retention of moisture on the parts of the plates that are not to be printed.

#### Three Broad Classifications

Photo-lithography may be broken down into three broad classifications:

1. Black and white combination work. This means the assembly from a number of customers of orders for one or more pieces of printed material, in one unit size—(usually  $8\frac{1}{2} \times 11$  inches—to be lithographed at one time on a standard sheet of paper, which is usually a 20-pound white bond).

A job turned out as part of a combination run, when

the quantity is small, represents the most economical piece of printed matter from the important standpoint of cost. The lithographer gives the buyer the benefit of a distribution among a number of customers of the cost of operations so standardized and so free from hazards that they seldom require more than a pre-determined minimum time to perform. Paper can be bought in large quantities and at prices considerably lower than would have to be paid if the buyer insisted on a special paper for his individual small requirement.

2. Individually lithographed "black and white" work. Such work becomes tailor-made—done expressly for each customer. It does not permit distribution of costs among several or more customers. It includes simple color work in which rules, lines of type and decorative spots are lithographed in color, but without the necessity for hair-line registering of such color areas with those lithographed in black or other colors, or the superimposing of one color on another.

3. Color work or difficult black and white work involving not only an accurate register of colors in relation to each other, but also the making of half-tone screened plates, to be printed in black only or in colors, sometimes with the colors superimposed on each other. In such cases a high degree of skill and the best of equipment is required.

#### Advantages of Combination Runs

A large volume of business has been built up all over the country just in lithographic combination work. The products of such combinations usually are single sheets consisting of one of the commonly used unit sizes— $8\frac{1}{2} \times 11$ ,  $9 \times 12$ , etc. In many instances, however, folders, and even small booklets can be turned out as part of combination runs.

Let's see what happens when a buyer who knows the great advantages to be derived from combination work decides to get out, say, 100 copies of an eight page self-cover booklet, page size  $5\frac{1}{2} \times 8\frac{1}{2}$ , to be used as a manual for branch office employees.

Here's a requirement that is just made to order for the lithographer who makes combination runs. The quantity is small, which means that the booklet, if produced by any other process, would result in a prohibitive cost per piece. The internal distribution of the booklet, and the fact that its purpose is one of the utmost utility—calling for careful reading in spite of its lack of color and other inducements that are necessary when the piece is in competition with others for the reader's attention—is another factor suggesting its production as part of a simple black and white combination run.

(Continued on page 47)



THE PHOTO-LITHOGRAPHER



# REQUIREMENTS IN PAPER

By DR. T. A. PASCOE  
Technical Director



# FOR LITHOGRAPHING

Nekoosa-Edwards  
Paper Co.

**M**OST of the general requirements of paper, such as cleanliness, sufficient strength for a particular use, uniformity of color or tint and similar general considerations, apply to paper to be used for lithography as well as for other types of printing. It has often been stated, that if any one adjective were to be chosen to describe the most desirable qualities in print paper, that adjective would be "uniformity." Because of the certain peculiarities in the lithographic and offset methods of printing, this item of uniformity becomes of even greater importance.

Included in lithography are all methods of printing that are based on the principles of flat or only very slightly etched plates as compared to relief or intaglio plates used in other printing processes. In such methods of printing the confining of the inked portions of the plates within the proper boundaries is accomplished by surface tension forces. These forces are easily upset and it is always possible that the paper may contribute some material that will result in the destruction of these boundaries. It is thus seen that a rather severe additional requirement is necessary in paper for this process over that found in most other printing processes. It will be pointed out later how the use of flat plates introduces other strict requirements in the paper being used as compared to paper for other types of printing.

**FINISH:** The finish demanded on a paper for a given job of printing by the processes under consideration will depend on the fineness of detail that is desired to be brought out in the finished work. The finer the detail required, the smoother the surface that will be required. Uniformity in the finish is of very great importance, in order to give a uniform portrayal of printing detail. The two elements of finish, namely gloss and smoothness, may be considered separately. Smoothness may be defined as regularity in the characteristics of the surface as contrasted to gloss, which implies a surface capable of reflecting light. The really smooth paper, that is having a regular surface, may be produced without any appreciable amount of gloss. On the other hand, it is conceivable that a very glossy sheet might still, and often does, contain irregularities in the surface that prevents it from being classed as a smooth sheet. For half-tone illustrations, smoothness is a very important factor, for the reason that irregularities in the surface will cause certain of the minute dots in the half-tone cut to fail to register.

**BULK:** Uniformity again is the desirable factor to be considered in relation to bulk. The non-relief character of the plates here again allows very little leeway for adjustment to take care of any inequalities in this property.

**SIZING:** The sizing of paper for lithography and particularly for offset printing is probably of more importance than it is for any other type of printing. In this process the sizing has to do more with actual moisture resistance than it does within the more conventional meaning of the word as applied to printing papers. The moisture that is continually applied to the plate along with the ink must be resisted by the paper or the running of multi-color work would result in a rather complete soaking and consequent disintegration of the paper with water. Surface sizing is practically always used on paper for this purpose, to give an improved ink receptive surface; also to assist in the elimination of fuzz and dust. The usual internal sizing, using rosin, is employed in addition to the surface treatment.

**MOISTURE CONTENT AND CHANGES THEREIN:** Changes in moisture content, brought about by exposure of the paper to changing atmospheric humidity conditions, is of greater consequence than is the absolute moisture content of the sheet when it is made or at any other particular time. The common manifestation of such changes in paper in ream packages or on skids is for a curling tendency to develop when the sheet is losing moisture, and for wavy edges to develop when the sheet is taking on moisture at the exposed edges. These physical manifestations of moisture change are the nightmare of the pressmen in causing bad feeding running into wrinkles, and so forth. In paper for use in multi-color printing it is, of course, necessary that the dimensions of the sheet remain constant during the passing of the paper through the press, in order to prevent misregister. The greatest factor in causing this dimensional change of paper is the loss or gain in moisture content.

A great deal of research has been done in an effort to discover means of minimizing this tendency toward dimensional changes. The most logical suggestions that have come from these investigations have been made by workers in the Bureau of Standards and the Lithographic

(Continued on page 45)

# HOW SALESMEN CAN HELP TO REDUCE CREDIT RISKS

By NATHANIEL WALKOF

Merchants Credit Adjustment Co.,  
New York

RECENTLY I addressed the Young Printing Executives Club of the New York Employing Printers Association. Prior to the meeting, a list of subjects was submitted to me for the purpose of selecting the one most fitting and appropriate for discussion by me.

Of the many subjects submitted, one of the most interesting was the following: "What the salesman should and can do to minimize credit risks when he takes an order." This question has been in the minds not only of credit departments but also of executives, generally, who have pondered earnestly and seriously the question of the contribution of the salesman to the credit department of a business.

The ways are numerous. A salesman calling on a firm for business is confronted frequently with many diverse and varied situations. If he is alert and makes a mental note of the things he sees and hears about him, then transmits his observations to the credit department of his firm, he will be aiding the credit department in deciding upon the advisability of checking or rejecting the order.

In considering this proposition I, of course, have in mind one who is not merely concerned in taking an order, but the conscientious salesman who has the interest of his employer at heart and wants to follow thru for his firm's welfare, so that the invoice will be paid when due.

Reckless buying is one of the direct causes of insolvencies, for it is well-known that the man who is reckless and careless in his purchases is likewise in his payments. The salesman should note all these things in a careful manner and report all these conditions to the credit department to enable it to pass intelligently upon the credit of a customer.

From my long experience I have found that salesmen who are on the job, by watching, looking and listening, can be of great help in determining whether or not credit should be extended. In many instances the salesman becomes very friendly with his customers and is very often in a position to obtain confidential information which should, of course, be imparted to the credit department.

At the same time, salesmen should not allow their personal friendship for the customer to interfere with the credit department's checking of the credit of the customer.

Sometimes salesmen do not appreciate the significance of certain information which to them may seem trifling

Knocking on many doors . . . and getting a hearing . . . is one key to the successful selling of photolithography.

But . . . examine carefully the standing of every buyer, not only in rating books but through alert appraisal of all the circumstances



connected with getting the order.

Don't consider an order a sale until the credit standing of the buyer has been checked from every angle.

This is the gist of the advice given by Mr. Walkof, who has had lots of credit experience in the graphic arts field.

and unimportant but which, when conveyed to the credit department, frequently aids in preventing losses to a business.

Very often while the salesman is sitting in the ante room waiting for the buyer to give him an interview, other salesmen walk in and are also waiting, and as a result the salesmen usually discuss among themselves the make-up of the concern they are trying to sell, or have already sold, and it is surprising how much valuable information is conveyed in that manner, and how important it is for each salesman to report to his credit department any information that he picks up this way. The information, at the moment, may not seem very important to the salesman, but a little word here and there is very likely to open up an opportunity for the credit department to follow up such information and very often it prevents losses.

I have in mind the fact that some years ago a very large dry goods concern had received information from its Chicago representative, who had obtained an order from a large Chicago firm, solely for fancy goods, that the debtor was buying promiscuously and freely; that they did not bother about prices. The salesman, when sending this order to his firm, mentioned all these facts, and as a result, the credit department in following up the information conveyed to them by their Chicago salesman, discovered that a bankruptcy ring had purchased the company, which had heretofore borne a high-class reputation, and had a good credit rating, and were using the past reputation and credit rating to buy up to the hilt.

As a result of this salesman's suspicions, caused by the way the order was given to him, the credit department refused to ship the merchandise. Within sixty days thereafter the debtor was in the bankruptcy court, with liabilities running into many thousands of dollars and no

assets. Due to this salesman's keenness in noting how the order was given, he saved his firm many thousands of dollars.

In another case, a concern that specialized in manufacturing and selling flannels received a request from a Western concern, which had been inactive in the trade for some time, to have its salesman call on them with his line of flannels. The house communicated with its salesman, and instructed him to call on this concern. A careful investigation was made in advance, which indicated that the company was not in first-class financial shape but its reputation in the past for paying bills was fair.

In order to test this outfit as to whether they really intended to pay for any merchandise bought, the salesman was requested when exhibiting his samples to ask prices above the market price for this class of merchandise, and to observe the manner in which the merchandise was being ordered. The salesman, after making his call and exhibiting his samples, in many instances asked three or four cents a yard above the prevailing market price. Although he quoted such high prices just for a test, before he got thru he had an order running into many thousands of dollars. He reported that half of the time the buyer didn't even look at the merchandise and that, from his general observation, things did not look "according to Hoyle." As a result the credit department turned down the order and, due to this salesman's careful observation, the firm was saved from a tremendous loss.

The following illustrates the importance of reporting incidents that come to the salesman's attention. A salesman, while waiting for his turn to exhibit his line was seated next to a competitor's salesman. During the conversation a gentleman came out of the office of one of the members of the firm, who did the buying, and the competitor's salesman recognized that person as an auctioneer and said to the other salesman: "What is he doing here? I know him to be an auctioneer."

The salesman obtained a substantial order but reported to his credit department that an auctioneer had been in consultation with the buyer. An investigation by the credit department indicated that the auctioneer was a man who was known to have bought stocks of merchandise from failing concerns. As a result they did not ship the merchandise and were saved thousands of dollars. The salesman who was so gracious as to advise this salesman who the auctioneer was, neglected to inform his own credit department. They shipped the merchandise and, of course, were in for a substantial loss.

I was recently informed of an incident where a sales-



The junior lithograph salesman, so anxious to land his first large order, is fine prey for scheming and unscrupulous buyers.

The old joke concerned with the selling of Brooklyn Bridge by city "slickers" laid stress on the gullibility of the buyer. This article shows that sometimes the seller is left "holding the bag."



man was waiting to show his line and overheard a conversation between a member of a firm and an accountant. He heard the accountant say:

"If you issue the statement that you are telling me about, I want you to know that under no circumstances will I allow my name to appear on it as a Certified Public Accountant. I cannot conscientiously certify your statement because it is not in accord with the books."

The salesman, who had overheard this conversation, reported this to his credit department and although the order he obtained was a substantial one, it was not shipped and it developed that some three months later the debtor concern failed and was prosecuted for making a false statement. If, on the other hand, this salesman had not reported this incident, his concern would have suffered a substantial loss.

It is surprising, indeed, the valuable information that a salesman can gather which aids a credit department to either check or refuse to check an account for credit. A wide-awake salesman, and it is to be presumed that all salesmen are wide awake, should report all unusual happenings to his credit department in order to minimize losses. A salesman is really an ambassador for his concern, as it is only thru his eyes that his firm can get an intelligent picture of the firm they are selling and their methods of buying.

The salesman owes it to himself to keep his eyes open and his ears working while endeavoring to make a sale. He should observe in every instance the manner in which the merchandise is being bought, he should observe general conditions as they present themselves to him while he is making the sale. It is also a good rule for a salesman to keep personal records of purchases made from time to time by his customers so as to be acquainted with the purchases that are being made to see whether the customer is overbuying.

The salesman should familiarize himself with trade conditions in his particular industry. In that way he is able to gather a lot of valuable information which should be imparted from time to time to his credit department, giving his views as to why the order should or should not be accepted. It must be borne in mind that very often the salesman is right on the customer's premises while the credit department is hundreds of miles away.

(Continued on page 81)



## EASTERN ASSOCIATION HAS ACTIVE PROGRAM

**T**HE Eastern Lithographers Association held a dinner and meeting in New York recently, given over to a report of the Association's Labor Committee, changes to the Constitution and By-Laws to provide for the direct election of officers by the Association instead of by the Executive Committee, the election of officers, and a discussion of the program of the Association for 1938.

As had been reported in October, the Executive Committee of the Association has created an Industrial Relations Committee charged with surveying from time to time labor conditions in the area covered by the Association and with meeting with interested parties for the purpose of discussing labor matters.

When the meeting got underway, the Labor Committee made its first report which was a survey of labor conditions in the area covered by the Association. The personnel as now constituted is: Dudley Morean, American Colortype Co., Charles W. Frazier, Brett Lithographing Co., George E. Loder, National Process Co., James L. Murphy, Consolidated Litho Corp., and Malcolm McComb, Secretary.

### NEW OFFICERS ELECTED

After the adoption of amendments to the Constitution and By-Laws providing for the direct election of officers from the membership, and for changing the time of the annual meeting to December, the election of officers was held. The officers for 1938 are:

Dudley Morean, American Colortype Co., President, George Kindred, Kindred, MacLean & Co., Vice-President, and James L. Murphy, Consolidated Litho Corp., Treasurer.

The personnel of the Executive Committee is as follows: Dudley Morean, American Colortype Co.; W. Lester Baner, Baner & Mayer, Inc.; Charles W. Frazier, Brett Lithographing Co.; James L. Murphy, Consolidated Litho Corp.; George Kindred, Kindred, MacLean & Co.; George E. Loder, National Process Co.; W. J. Sweeney, Sweeney Lithograph Co.; and M. L. Griswold, Rogers-Kellogg-Stillson, Inc., who was elected to fill an existing vacancy.

### TWO-FOLD PROGRAM

The program of the Association is two-fold.

The first aim is to accomplish as far as possible a high degree of cooperation among members looking to the protection of the local industry. In this connection, it was agreed that a vigorous drive for membership would be undertaken, but no sub-standard establishments would qualify for membership. Recognizing that fair competitive conditions can exist in an industry only insofar as sub-standard differentials are not effective, membership in the

Association stands for fair competitive conditions deriving from fair standards. This is, it is believed, the only sure protection to customer, employee and employer alike and the means available to members to contribute to the prosperity and soundness of the industry and of their own establishments.

To further intelligent cooperation toward these ends, the members will continue their regular monthly meetings to discuss developments in the industry. At these meetings from time to time experts in lithographic technology and graphic arts management will appear.

The second aim of the program is to make the dues burden of the Association as small as possible through carrying on services for the members which can be translated into dollars and cents savings or profits to the members using them. For this purpose the present services of the Association are to be continued and, as opportunity provides, added to.

The officers of the Eastern Lithographers Association are located at 120 Wall Street, New York, in charge of Malcolm McComb, Executive Secretary.

## Fathers and Sons Enjoy Ninth Luncheon

J. A. Voice, president of Consolidated Lithographing Corporation, was host at the ninth annual Fathers and Sons Annual Luncheon, held at The Lotus Club, New York, on December 29.

In addition to the fathers and sons, representing prominent New York lithographing companies, ten executives from Consolidated Lithographing Corporation and Sinclair and Valentine Co. attended.

Those present were:

### *Fathers and Sons*

J. A. Voice, Sidney P. Voice, Consolidated Lithographing Corp.; R. R. Heywood, R. R. Heywood, Jr., R. R. Heywood Co.; General Wm. Ottmann, Wm. Ottmann, Jr., U. S. Printing & Lithograph Co.; Harry H. Platt, Benj. J. Platt, Sackett & Wilhelms Lithographing Corp.; A. B. Rode, A. B. Rode, Jr., Rode & Brand.

### *Sinclair & Valentine Executives*

W. J. Witte, A. J. Math, A. J. Mahnken.

### *Consolidated Litho. Corp. Executives*

Henry A. Voice, Ralph D. Cole, Robert Barnes, A. Fichman, James L. Murphy, Vincent J. Dunn, Sidney S. Levine.





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# WHAT JOURNEYMEN WANT IN THEIR FOREMAN

By

ADAM HENRI REISER



Just as the skilled journeyman must have good tools such as these if high quality work is to result from his fine craftsmanship, so the efficient foreman must have certain traits in his kit—of personality and skill as well as of wood and steel. Mr. Reiser describes some of these tools in this article.

**P**REVIOUS articles have treated with the requirements of the superintendent in the lithographic industry, with a carry-over of the foreman's part. But what of the journeyman's opinion? What does he believe a superintendent should have? What technical equipment does he think a foreman should possess? And what has he come to expect from them?

There often is a conflict between what the mechanic likes to expect of the foreman and what he has been taught by experience to expect of him. All too often the driver type has a poor conception of time requirements on jobs. He is imbued with the principle of "every man must be pushed," and uses it irrevocably. A wall of resistance frequently is set up by this type, resulting in a volume of work much lower than is obtained by the wise foreman. The pendulum swings the other way when mechanics are pushed too much. We've all seen the attitude: "now you'll wait 'til you get it."

A most controversial subject, isn't it? It is offered to arouse thought and discussion. The following opinions have been solicited by the writer, and should be held as expressions of a cross section of the lithographic mechanic rather than a personal expression of the writer. Whether or not he agrees with the trend is beside the point. The main idea is to provoke thought, and if this has been accomplished, the article is worth its salt.

## SUPERINTENDENT AND FOREMAN

A vast amount of material could be gathered under this head, but necessarily we'll have to be brief. Let's clarify the material somewhat by a breakdown into two sections:

First: In this classification the superintendent heads an organization having department heads; the mechanics having no actual contact with the superintendent.

Second: The superintendent acts as foreman of departments as well as supervising the whole plant.

In the first case where there is this lack of contact the mechanic feels no concern over the qualifications of his

superintendent beyond admitting generally that he must be litho-minded and business-like enough to assure a livelihood for the employees associated with him. To have a man from another craft head a lithographic division would hardly work out, they feel, because of the leaning toward his own craft. You see the carry-over of that business-like idea with a view to job assurance? Though some employees fail to examine this thought intimately, it is nevertheless present in the minds of most. So much for the superintendent with indirect mechanic contact.

Under the second heading, the picture changes. Here the superintendent covers the entire works, actually working at some one of the branches, in addition to supervising the shop as a whole. Here the demands of the journeyman upon the superintendent run parallel to those of the journeyman upon the foreman. For: he expects the foreman to act as a buffer between himself and the front office. This is to take the form of justifying his time on jobs; kind of work produced under the conditions; securing adequate working conditions, compensation, etc.; proper materials with which to do the work; and securing a common understanding between the men and the front office. And:—he expects help during his work when difficulty arises.

## THE BUFFER AND THE SOLVER

With a man in charge familiar with the operations, their difficulty degree, time necessary, problems presented by the work, etc., etc., it is felt by most mechanics that their problems are fairly represented to the front office. The same applies to materials. Increased costs brought about by materials different from those used ordinarily may mean a loss on a job. On the other hand, the added materials may mean a saving in motion or steps. Here again the ace mechanic offers invaluable assistance in justifying expenses. That seems to be the general belief. Whether it is based on fact remains another matter.

The mechanic expects help from his immediate superior, be he foreman or superintendent. Where the superintend-



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*Lithographic Equipment & Supply Division*

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ent acts as a foreman over each department, and also supervises the whole, he is the immediate superior of each worker, and must orient the whole in terms of each of its parts. Being the immediate superior brings with it department responsibilities. When a mechanic runs against a snag of any kind he must refer to someone for help or a decision. When he hits production trouble of one kind or another, he must go somewhere for a solution. He could probably fight it out himself. But that proves costly in most instances. Practice dictates appealing to the foreman. If he measures up to what the mechanic expects of him, help will be rendered. The pressman feels that when he runs up against wrinkles, he should see the foreman and present the facts for his consideration. He checks these facts first so that questions can be answered on them. Such facts as:

- a) Is the sheet cut straight, or does it belly on front edge?
- b) Is it larger or smaller than the last job run?
- c) Has the feeder been changed?
- d) Have the hold-downs or guides been changed or touched?
- e) Is it heavier or lighter stock than the last run?
- f) Has the pressure been changed on any of cylinders?

The camera man finding trouble with his silver bath (if it is still being used) wants advice from his foreman before pulling everything apart. He, too, checks certain details and presents them to the foreman:

- a) Is the trouble caused by glass recently washed?
- b) When does the trouble become evident?

Or, if the trouble lies in dot formation that is objectionable:

- a) What stops are being used?
- b) What is the screen distance and exposure time?
- c) What development is being given? Temperature of developer, etc.

Or, if the artist has trouble with dot-etching, he feels his foreman should help him before he loses too much time.

Information he brings to his superior should be truthful and clear, so that a rapid solution may be forthcoming. The foreman is expected to go far toward solving the trouble, the start being in the form of suggestions in steps that may be taken. The mechanic does not want to sit back and have the foreman do the corrections for him. But he does want some expert advice. It is conceivable in some instances that the solution may not be forthcoming at once, for elimination advice may be necessary. If the solution is not possible within the realm of the shop, then his foreman can get it for him, thus getting him out of the mess he may be in at the time.

This makes the foreman a trouble shooter. He assists wherever his presence is required. But when a man gets a piece of work, he expects to be left alone until he finishes it. If the press is on his neck, or production requires

speeding-up, then help must be rendered. But that can be overdone. When pressure is applied too frequently, mistakes occur. The wide-awake foreman recognizes this and makes provision for it, by splitting the job among one or more extra men, or routes it to better advantage.

#### ANOTHER SIDE OF THE PICTURE

It has been said that men in charge of departments must be ace mechanics. And yet some mechanics have mentioned instances in which they worked for persons entirely strange to the process, and liked it far better than working for an ace mechanic. It is their finding that the ace mechanic is far too critical, and consequently is impatient with a poorer grade mechanic. Quality and quantity both suffer when that creeps into the production chain. This much is stressed, however. Invariably it takes a higher degree of mechanic to work with a production man who is only slightly familiar with the process, than with a mechanic in charge who has been around.

Admission is accepted of the fact that the ace mechanic may offer suggestions which would enable the job to be produced within the estimated time range or cost. He may even be able to pitch in and render assistance in that direction. He may be able to lay the job out so that corners are out and production schedules are met. To keep men at work in a particular shop, he must arrange estimates and time costs so that competition of neighboring shops are met. Therefore if he estimates too high in order to clear his department of loss-taint, he not only succeeds in keeping within estimates, but he also sets up a bar which no salesman can hurdle. On the other hand, he cannot offer figures that fall below the actual time hours, and expect to make money. And the ace mechanic all too often does under-estimate, figuring everyone as fast as himself.

Lower costs often result in poorer work quality. Lithography might suffer as a consequence of this poorer work, is the feeling that obtains among some mechanics. There is present a loyalty to lithography among these mechanics. This group feel that it is folly to create a worse set of conditions in lithography merely to get work from a competitive industry where deplorable conditions already exist.

To properly present this gathering of ideas would have meant dividing the offerings into their respective fields, of quality work and ordinary work, of small shop and large plant. A different set of conditions prevail in each instance, which calls for an entirely different set of control factors. However, the above should offer some food for thought.

It should offer as much to the eye as Mrs. Brown. She is a very large woman. Besides her great number of pounds, she is also possessed of timidity about crossing heavy traffic streets. One day she stopped a policeman and asked, "Officer, could you see me across the street?" The cop took one look at her and replied, "Lady, I could see you a block away!"

## WEBENDORFER LINE

### Sheet Offset

12 x 18  
17 x 22  
22 x 26  
22 x 29  
26 x 40

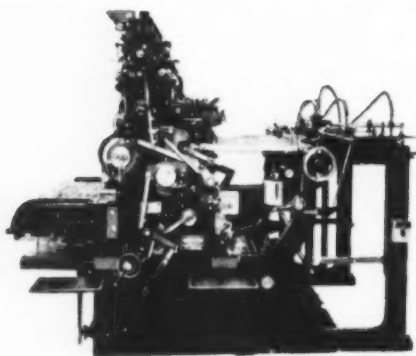
### Letter Press

### Little Giant

### Web Reel Unit Offset

11 x 17  
17 x 22  
22 x 24  
and up

Write for  
Full  
Information



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THE PHOTO-LITHOGRAPHER

# STUDIES IN SALES MANAGEMENT

For  
Administrative Heads  
and  
Ambitious Salesmen  
Part Two

By WILLIAM WOLFSON



*Some of the salesmen in this crowd are extroverts. Because they would rather talk to people than do anything else, they can't help making a good living just selling, even if they do keep all of their records "on the cuff" or scattered through their pockets on envelope flaps. Some are introverts—selling of necessity because they have to make a living somehow. They are doing fairly well with orderly plugging but they will never make up for enthusiasm with will-power. Some are in-betweens. They like to meet people, but they are also able to enjoy an occasional lunch alone or a quiet evening, just reading at home. These men are of sales manager calibre as far as temperament is concerned. They are the ones most likely to read and profit from this splendid article by Mr. Wolfson.*

ANY sort of management calls for a head. Who is qualified to be a sales manager for a photo-offset house? You will pardon the personal experiences the writer narrates, but these are necessary in order to develop details on the subject, and in order to stress certain points.

In my late twenties I held down the position of advertising manager for a three million dollar manufacturing corporation. It happened that the sales manager left, and I was given charge of that department as well. But that was a mistake, for I was not qualified to carry on the duties. All I did in such capacity was to receive written reports from the local salesmen and from the managers of branch offices; these I scanned, wrote some follow-up letters, and filed the reports.

I had no authority to hire and to fire. I had never sold, and had never been on a selling trip out of town. I know now that I was sales manager by courtesy. I know, too, that my appointment was a sort of "squeeze play." There was one elderly gentleman whose business-card title designated him as the "First Assistant to the Sales Manager." In indignation, he came to me and inquired, sarcasm acidly dripping from his voice, "Am I supposed to be *your* assistant?" He, at least, had years of selling experience, and his bitterness was justified. I merely referred him to the president of the corporation, and the next thing I knew he was among the missing. This, undoubtedly, was what was wanted.

To make my confession complete, I was also a "rubber stamp" advertising manager. True, I wrote trade paper advertisements, but I had no say in fixing the advertising budget. Only in direct-mail follow-up material (circular letters run off on a multigraph by the office boy) did I have a free hand. This was long ago, but I do recall that

I wrote resultful ads and circulars; and was a splendid buffer—warding off all interviews of space sellers, etc., from the president.

*It is a joke to appoint any employee sales manager, regardless of qualifications. It is just as ridiculous and meaningless for one of the owners of a photo-offset plant to act in such capacity, if he is not capable or is unable because of pressure of other matters to do the right work and to take the time needed for proper accomplishment.*

Many years afterwards I applied for the position of advertising and sales manager in another organization—and got the job. But I now had broad selling experience under my belt. Therefore, I was not dismayed to confront some fifteen salesmen, who worked in New York City only when they were through with an extensive sales trip, and were waiting to be sent out on another lengthy one. This, of course, was no vast sales force that I had to handle; but there were also three or four branch offices, with their managers and the men under them.

I had accepted the position on the basis of being in complete charge and with full authority. Naturally, the salesmen resented an outsider stepping in—especially, when there had been no attempt at management before. There were men on the force ten years and more my seniors in age. They growled at discipline, objected to rules and regulations laid down, and almost mutinied when compelled to write out reports.

In order to gain their respect, I went out and brought in as much business weekly as any three of them. That was easy, inasmuch as I worked hard, whereas they did not. So they conspired and a spokesman asked me to help close one prospect. He was tough, his requirements were such that we could not justify his purchase of the product we



# **MOLLETON**

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*flannel*

---

## **RUBBER BLANKETS**

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SEWN MOLLETON & FLANNEL COVERS

---

SEAMLESS MOLLETON & FLANNEL COVERS

---

DAMPERS . . . LEATHER ROLLERS

---

HAND ROLLERS . . . SCRAPER LEATHER

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SEAMLESS FOUNTAIN ROLLER COVERS

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## **ROBERTS & PORTER**

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manufactured. It so transpired (really a matter of luck, because times were good, money easy, etc.) that I was able to sell this man. For good measure, I brought in his check in full to cover the transaction, a cash-with-order sale. After that incident, I was king-pin, indeed.

*Evidently, it is desirable that a sales manager should be able to sell. That should not be interpreted to mean the post should be offered to the star salesman. He must have other essential qualifications.*

What are these qualifications? Well, the first is knowledge. This knowledge differs with different organizations. In some cases, he must know law of contracts, know domestic and foreign markets, know his field of operations, the legislation pertaining thereto, and countless other things. As the sales manager of an offset plant, he must be thoroughly conversant with the following:

- (1) Production processes;
- (2) Costs of production in his own plant, and a very good idea of the costs of competitors;
- (3) The facilities of his plant, not alone equipment but what the workers in the plant are and are not capable of doing;
- (4) An understanding of allied graphic arts production—from mimeographing up to letterpress, rotogravure, photo-gelatin, etc.—and prices in comparison with his industry's prices of production.
- (5) He must be able to correlate his knowledge, know how to apply it advantageously, and how to get further data when needed.

The above is not a complete listing. Yet it is sufficient to show what a sales manager must know.

*Brain power, knowledge, keen intelligence are not necessary in personal selling. I have had salesmen under me on some propositions who were almost illiterate. The best kind of salesmen hate detail, would rather telephone or walk than write a letter, are careless about rigid order. An average amount of commonsense or thinking ability is all that is necessary; and add, for the selling of photo-offset lithography, a practical understanding of what it is all about.*

Now, a sales manager in a photo-offset house must have selling experience. Inasmuch as most of such houses operate locally, and the sales staff is comparatively small, he may have to spend some of his time in the field; be able to "pinch hit" for his men upon occasion; and go out with them when called upon to do so.

But, it should be remembered that the sales manager is an executive. His selling experience stands him in good stead, because it gives him a first-hand knowledge of what his men are up against, the reactions of customers and prospects. Still, for such understanding, he need not be a star salesman. He should be a good analyst; have the power to plan, and to direct.

In psychological terms, the true salesman is of the extrovert type. The sales manager, on the other hand,

should not be of the contrasting extreme, an introvert. He should be somewhere in between; sufficiently extrovert, in order to get along with other people; sufficiently introvert for planning, for system, and for detail.

The head of a photo-offset plant should observe in himself, or in any individual he is considering for the post of sales manager, the following characteristics:

Is initiative present—a self-starting trait, rather than waiting for someone else to suggest things? Is there an inclination to tackle the difficult tasks first and dispose of them, no matter how personally distasteful they are? Does interest grow keener the deeper one goes into any undertaking? Are one's own opinions expressed with confidence? Does a cheerful spirit prevail under distressing circumstances? Is there "weight" of personality, so that one is taken seriously by others? Can one work with and among others without embarrassment and without confusion? Can one listen to opinions, profit by them, yet abide by his own decisions?

There must be organizing ability, proper judgment in delegating work to those most capable of so doing. And in this phase, any assignments given must be concrete, definite, and not vague. Duplication of effort must be avoided.

There must be alertness, ever watchful for sales opportunities, with an eye on the methods and practices of competitors. Good judgment is essential, when given leeway in estimating and the matter of prices.

There must be an element of stimulation and for this the sales manager must have the confidence of the salesmen in his ability and his judgment. He must have a high sense of justice.

There must be disciplinary skill. He should be able to criticize constructively without antagonizing. He should be able to give sound and sane reasons for his orders, and have them understood by the men under him. He must hold the reins firmly without becoming unreasonable. And above all, he must be able to keep his force working spiritedly for a common goal.

So much for characteristics, for the time being. Let us study the boss who assumes charge of his salesmen,

(Continued on page 79)

## **We will pay \$1.00**

**for each of the first twenty copies of The Photo-Lithographer, July, 1937, issue, that is sent to us. This issue is needed to complete extra files.**

## **The Photo-Lithographer**

# Join

## THE NATIONAL ASSOCIATION OF PHOTO-LITHOGRAPHERS

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**COST DATA**—Knowing your costs is a requisite for success. The Association will supply you with accurate cost data, including cost forms designed especially for photo-lithographers.

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**TECHNICAL**—Survey data on troubles found in lithographic plants will be sent you periodically.

This data is practical, is based on actual conditions. This service alone has been the means of members saving hundreds of dollars in production time.

**SALES HELP**—You will receive periodically lessons in selling and shop practice, in booklet form, in addition to *THE PHOTO-LITHOGRAPHER*.

**MISCELLANEOUS**—You will receive other information of a confidential nature concerning competitive trends, legal rulings, etc., that vitally concern photo-lithographers.

*Fill Out and Mail Today!*

Date .....

### NATIONAL ASSOCIATION OF PHOTO-LITHOGRAPHERS

1776 Broadway, New York, N. Y.

Please send us more information concerning membership in your Association.

Our press equipment consists of:

No. of Presses	Make of Press	Size of Press
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Firm .....

Address .....

Individual ..... Position .....



# A QUESTION AND AN ANSWER

About a Matter Both Ethical and Technical

## THE QUESTION

Brooklyn, N. Y.

Editor, THE PHOTO-LITHOGRAPHER

Dear Sir:—

*There is quite a controversy at my place of employment as to the services and responsibilities required of a pressman compared to those required of an operator.*

*I understand that each has specific obligations and junctions to perform and to acknowledge.*

*If you will inform me so as to settle the matter I will greatly appreciate your kindness.*

## THE ANSWER

WHERE do the operator's duties end; and where do the pressman's begin? How much do I do?

There is much to this subject that needs defining. To say just that "a pressman does so-and-so, while the operator does so-and-so" would be so indefinite and uncertain. Two-color pressmen are faced with a problem different from that of single-color pressmen. The operator, too, in that case has duties somewhat at variance with those of the single-color operator. Of course, a higher wage scale compensates for the additional skill required for the crew of multi-color presses.

In any case this much is absolutely certain—the pressman is the captain of the crew. This carry-over of the leadership by the pressman comes from the days of the stone press. He is responsible for the quality and quantity of production of the machine over which he rules. Perhaps the term "rules" is too misleading. It is cooperation that is needed on the modern offset press with its high-speed mechanism, more than it was needed ever before. Without this spirit of help, where one helps the other, there is friction and a consequent loss of production. Bickering and that "chip on the shoulder" attitude have no place in the operation of high speed equipment. Lithography suffers when negative personal feelings enter the process.

Theoretically there are two ends to the press: the feeder-end, and the front- or plate-end. An effort has been made to draw a distinct line between both ends, beyond which neither mechanic was to venture. But the absurdity of such a stand becomes evident when trouble occurs at the feeding end, for it is then that the pressman jumps in and assists. Just as in the old saying about the mail, "The mail must go through," so it is with production. It must be maintained.

Certain duties of course are basic to both mechanics.

The operator must get his feeder loaded; get the sheets down to the guides; set the press for the new sheet size; help the pressman put on the press-plate and blanket; wash the blanket when necessary. In addition he washes up the press, with an assistant, and performs such other duties as his pressman delegates. He is responsible for the condition of the press after the pressman turns it over to him for the wash-up.

The pressman mixes his own ink; the dope for the water fountain; puts his plate and blanket on the press (assisted by the operator or the fly-boy); washes off the press-plate; gums up and washes out the plate; or performs any of the operations necessary to the care of the press-plate; gets his lay by shifting side-guides or gripper guides when necessary; setting of rollers; dampers; blanket packing and plate packing; pressure cylinder packing when necessary. He is responsible for the output of the press. He is held responsible for the kind of job printed, but, so is everyone else concerned with the operation of the machine producing the job. Everyone on the press must be acutely alert at all times, looking for errors and factors that tend to interfere with press operation. It is only by the exhibition of that spirit that jobs are made secure.

There is no greater degree of team work needed anywhere in the industry than in the work of the crew of a multi-color press. Pressman and operator as well as fly-boy must work as one solid unit. Here all personal ambition and interest becomes merged in the one desire to get the job done to the best ability of all concerned. It becomes necessary for the operator to assist in the care of the press-plate on one of the units. Therefore he washes, gums up, and washes out the plate of one of the colors being run, when necessary. Other duties, however, remain much the same as they were in the operation of the single-color press.

Too much stress cannot be placed upon the cooperation factor in the relations between the members of the crew of an offset press. Personal interests should be submerged, with all hands striving for the general good. The pressman who feels deeply his responsibilities as head of the crew will mix his own fountain solutions and inks, and take care of the press-plate himself. It is only in this way that he can control three of the greatest variables in the process.

Commonsense and the ability to see eye to eye with a fellow worker is one of the greatest assets in this human relations problem. Study of that factor as developed in the recent Superintendent Series in THE PHOTO-LITHOGRAPHER also can be of much help to the supervisor of the crew, the pressman. As mother used to say, "It takes two to create a fight."

# THE **VULCAN** LABORATORY SCORES AGAIN



## **NEW NO. 43 OFFSET BLANKET** proves highly successful in **SERVICE**

Once more the famous Vulcan Laboratory "comes through" with a money-earning new product for lithographers and offset printers.

This time it's a new offset blanket—to be known as No. 43—and it has already proved worthy of a place among Vulcan's other successful products used in this field.

In hardness, or body consistency, this new blanket is midway between the popular Vulcan Red Blanket and the equally popular Vulcan Black Blanket (Style 808). It is more flexible, more pliable than Style 808, with an exceptionally smooth, fine-textured surface. It requires no running in; and there is no sulphur bloom to be removed.

No. 43 is light tan in color, which makes the work visible on the blanket. It is made to eliminate any tendency to emboss, deboss, swell, or become tacky. Finally, and most important, No. 43 has splendid printing qualities, combined with durable construction.

This new blanket is the result of two years of painstaking laboratory work, since which time it has been in highly successful service for nearly a year. No. 43 is for paper stocks only—not for metal decorating. Write for particulars.

### **VULCAN PROOFING COMPANY**

Fifty-eighth St. and First Ave., Brooklyn, N. Y.  
*Sales Representatives in Principal Cities*

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## **VULCAN LITHOLASTIC ROLLERS, TOO, ARE MONEY-EARNERS**

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# MANAGEMENT PROBLEMS

By HERBERT H. LEVESS

Certified Public Accountant, New York

**F**OLLOWING is an address delivered by Mr. Leves to The New York Photo-Lithographers Association at one of its recent meetings.

The editor considers Mr. Leves' address well worth space in *THE PHOTO-LITHOGRAPHER* because it covers in an unusually comprehensive and lucid way most of the main principles of management that must be clearly understood to assure success in the photo-lithographic business.

My subject tonight is "Management Problems." A better title might be "Management Planning" or "Principles of Management." These principles are all well known to each of you. However, I believe that restating them will bring them into your conscious mind. In the press of the daily problems of a business, the management is apt to forget the practice of these principles, but I would urge that they be given thought whenever possible.

The principles which I think are important, and which I will discuss, are cooperation between sales, production and credit departments, budgeting and its tie-in with financial statements and financing, costs, personnel and insurance. I will also spend a few minutes discussing the present tax situation.

Management principles are analogous to a net with its interwoven threads. Where these principles are practised your net will be strong. If some of these principles are given little or no attention, there will be weak strings in the net through which profits may be lost.

The primary purpose of every business is to sell at a reasonable gross profit, and sell enough to cover expenses and leave a worthwhile net profit. In order that this aim may be accomplished, there should be proper cooperation between sales, production and credit departments. Salesmen should be educated to the problems of the production department and to keep these problems in mind when they are selling the customer. Likewise, they should be educated to the problems of the credit department. The salesman should realize that making a sale is not the ultimate goal, but rather to sell to reasonably responsible customers. In some instances, where circumstances may warrant, it might be a good plan to charge the salesman with a percentage of any bad debts on the accounts he sells. The percentage may be small, but should be enough to make him feel the responsibility of selling to fairly good accounts. This plan is feasible especially where salesmen work purely on a commission basis.

The production department should be informed as to the problems of the selling force, and should attempt to keep

promises wherever possible. In this industry, service is highly essential in keeping the good will of customers.

## SHARE YOUR CREDIT KNOWLEDGE

The credit department should be liberal enough to avoid serious protests on the part of the sales force, and yet conservative enough to avoid losses. This states the problem rather broadly, yet it outlines the field. I understand that your association clears information on customers among its members. The importance of such cooperation cannot be over-emphasized. In the textile trade this clearance of information has reached a high degree of efficiency. It only needs the lifting of a receiver for a concern to determine the relative responsibility of a prospective customer. Mr. Smith, your President, referred to the slogan in the printing trade which has been adopted by the photo-lithographers—"Share Your Knowledge." The information you may give will be of benefit to other members of the trade. Likewise, you will receive benefit from the knowledge which they have to impart.

## MAKE BUDGETING YOUR YARDSTICK

I come now to budgeting and its tie-in with financial statements and financing. It is an excellent plan, wherever possible, to forecast the expected operations of the business. Some expenses are fixed, such as rent, depreciation, certain salaries, telephone, etc. Variable expenses may be estimated on some reliable basis, such as sales. Likewise, forecasts can be made for the expected sales, purchases, labor costs and cash transactions. The importance of budgeting is that it sets a goal toward which the management will strive. Likewise, it provides some sort of a yardstick for the conduct of the business.

Financial statements should be prepared as often as possible—both balance sheet and operating statements—at least every month. Where the size of the business warrants, an analysis of operations by departments is desirable.

By preparing and studying these financial statements, comparisons can be made between respective periods, and the trends of the business can be followed, as well as the operations of the various departments. A comparison may then be made with the budgeted or forecast figures; if there is any great variance between the actual and budgeted figures, or between the results for different periods, they should be analyzed so that, if possible, it might be prevented in the future. Likewise, through such comparisons, the management becomes more adept at preparing forecast figures, and soon can estimate, to a high degree of accuracy, what the volume of the business



# Consider Equipment with Distinctive Advantages

## Wesel Plate-Coating Machine

(Right)

• This machine has an automatic *air-circulating* device that attracts no dust from outside. *A distinctive advantage.* Requires no extra motor for that purpose. Keeps the warm air *uniform and in constant motion*,—a factor insuring speed, consistency and cleanliness.

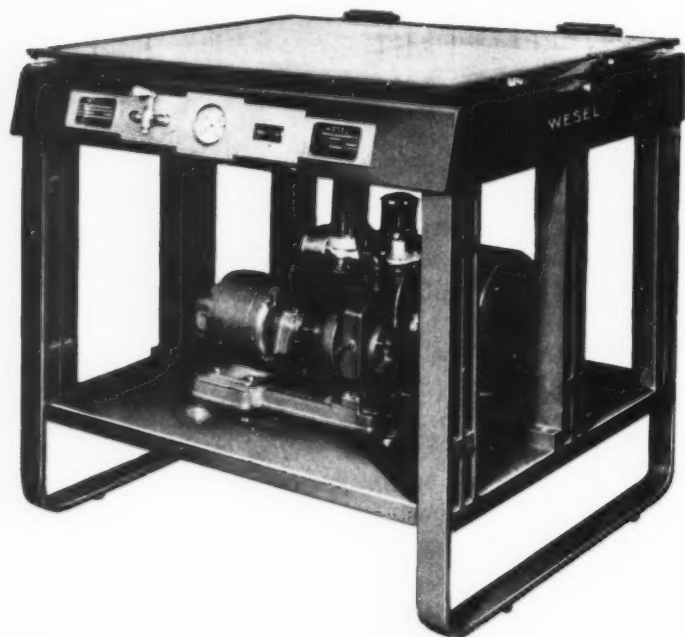
Driven by direct-connected, geared-head motor for positive and constant speeds, controlled by variable speed regulator.

In addition to the copper washing spray with automatic cut-off, this machine is fitted with a perforated copper spray pipe for cleansing the housing.

*Aluminum Alloy* revolving table; rustless alloy steel drum (*not tin*); ballbearing construction; adjustable legs; convenient drain connections; pilot light, etc.



*Made in all Standard Sizes*



## Wesel Automatic Vacuum Printing Frame

(Left)

• This unit has several distinctive advantages. The *automatic vacuum control* saves over two thirds of the electric current. This one advantage makes the most popular machine we have ever designed. Over a thousand are in use!

Vacuum contact may be had in two to three seconds. And there are no hooks, clamps or fastenings. The new "quartz crystal" glass *permits 25% faster exposure*. Motor and pump are built into one integral unit, the metal base of which is supported on a series of compression springs, eliminating all noise and vibration.

Entire mechanism operated from one central control panel. Nothing to get out of order.

*Made in Two Standard Sizes*

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NEW YORK  
468 Fourth Avenue

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431 Clay Street

MONTREAL  
637 Craig Street West

will be during the next thirty, sixty or ninety days, depending upon how far in advance forecasts are made. Comparisons between operating statements at different periods may bring to light errors which can be guarded against in the future. Preparation of forecasts and comparative statements gives the management the ability, figuratively, to step away from the business and see it in its complete perspective.

Budgets, financial statements and comparative analyses will facilitate proper financing of an enterprise. The management will be better able to coordinate purchases and expenditures with sales and production. The problem of financing is important if the management plans an expansion program. It is urged, wherever expansion is contemplated, that one go slowly. As an accountant, I would urge a conservative policy rather than over-optimism. The management may often be carried away by a rosy outlook, and later find itself in an embarrassing position.

A financial budget serves a beneficial purpose. It can be known just when moneys may be needed, and where expansion is contemplated, how far the firm is in a position to go. In connection with financing, I would emphasize the importance of providing for plant replacement, necessitated by depreciation or obsolescence. Likewise, a proper financing policy and the preparation of periodical statements aid towards establishing necessary credit lines with banks and supply houses.

#### GUARD YOUR COSTS

This leads me to the vital subject of costs. May I suggest to you the importance of "Guarding Your Costs." That is a phrase which should be constantly borne in mind. It has a special significance to photo-lithographers, because of their heavy investment in plant equipment, and also because their costs are not easy to determine. A well organized cost system has three essential functions: it is extremely helpful to your estimating staff, it facilitates a comparison of the actual cost of jobs with estimates, and last, it will help in the preparation of accurate operating statements.

So far as an estimate goes, if it is too high you will lose the job; if it is too low, you will have unprofitable work going through your plant. I believe that a proper knowledge of costs will insure estimates that will bring the firm a fair profit and yet keep in line with its competitors. A check-up through determination of the actual costs will disclose whatever mistakes may have occurred in the estimate, and in the future it will be possible to eliminate such errors. A well-organized cost system should tie in with general books of account, and if profits for the period are much less or much more than those expected, it will aid in determining the reasons for the variance.

In considering your costs, do not forget to provide a reasonable allowance for depreciation and obsolescence. Often it is found that a machine, although having a physical useful life, has become obsolescent because of im-

provements or a change in technique. Such a loss should be anticipated by the management. Likewise, it should not lose sight of the fact that Social Security payments are a definite element of costs. In 1938 they will amount to 4% of your labor costs—1% for old age benefits, and 3% for unemployment contributions. I mention this item because they are frequently buried in a general tax account instead of being distributed as a cost item.

The idea of standardization of costs has gained recognition in many industries. The same should hold true in yours. There should be some standard among firms doing a similar type of business by which each of them may measure its own degree of success or failure. The cost element will vary with each firm because of its own particular problems.

Your Association is vitally interested in encouraging the dissemination of knowledge of cost accounting and in uniformity, wherever possible, of costing and cost accounts. The subject is important to small as well as large firms. Of course, details should not go to an extreme. The management should take counsel with the firm's accountants in determining just how far detail should be carried. May I leave this thought with you, as far as costs are concerned: *Wherever you have prevented a loss, you have earned a profit.*

#### THE HUMAN EQUATION

The personnel problem is one which is often given very little attention. I know from experience that wholehearted cooperation of employees often means success to a business. Personal touch by the management with employees will earn their respect and loyalty and will, in general, receive a hearty response. Inducements can be had in the way of prizes or parties when the holiday spirit is in season. I have in mind a firm downtown, where the employees received bonuses last Easter. The girls in the office thought it would be a good idea to show the owner what they had done with these bonuses. They held a costume party and the owner gave out prizes for the most artistic and prettiest dresses. There is a splendid atmosphere of harmony and cooperation between the management and the employees in that firm.

*(Continued on page 53)*

#### PUT US ON YOUR MAILING LIST

Put the Photo-Lithographer on your mailing list for all types of material, including mailing pieces, booklets, brochures, news releases, etc.

We want copies of everything you get out so that we can call outstanding pieces to the attention of our readers.

#### THE PHOTO-LITHOGRAPHER

# LINE AND HALF-TONE NEGATIVES

By THEODORE S. HILLER

**W**HAT constitutes a perfect negative for photo-offset reproduction? This question, which can refer to either line or half-tone negatives, has several angles which should be considered individually and yet collectively since each phase is directly related to the other.

Whether line negatives are made from typewritten, printed or hand drawn originals, or whether simple or complicated, they should possess absolute density in the background, freedom from dirt spots, and clarity in the transparencies that is equal to the clearness of the uncoated base. Without such a negative poor planographed results can be expected. Nevertheless, the presence of these qualifications alone does not constitute a perfect negative. The following outline of requisites describes the necessary attributes of a photo-offset negative:

1. Negative photographed on the proper class and type of negative medium.

Note: Negatives can be divided into three classifications according to their bases; as paper, film and glass.

Photo-offset negatives, both line and half-tone, are of the contrast type.

2. Correct size (length  $\times$  width).
3. Sharply focussed and correctly exposed.
4. Correctly finished (developed, washed, fixed).
5. Sufficient density in the background.
6. Sufficient clarity in the transparencies.
7. All fine lines of the negative printable on sensitized metal plates.

## What Governs Choice of Media

The choice of any one of the sensitive media commonly used in photo-offset reproduction is governed by (1) the type of original presented—black and white or colored, line, stippled or half-tone; (2) size of the reproduction—enlargement, reduction or exact same size for register; (3) total over all size of negative; (4) how the negative is to be used, i.e., singularly or in combination with other negatives, or as an insert, title or sub-heading or as a full page.

When a black and white original is used a non-color sensitive medium is most generally used. However, some operators prefer a faster medium, such as the Orthochromatic variety, because of the decrease in exposure and the apparent brilliance gained in the finished negative.

When determining a particular class of sensitive medium, consideration must be given (1) the type of camera and accessories employed in the plant; (2) the ability of the camera operator; (3) the amount of additional work to be performed on the negative; (4) the

method employed for the purpose of making plates, i.e., vacuum contact frame or photo-composer.

The matter of size, with relation to the total over-all size and the retained size of the negative after drying, definitely decides the class of sensitive medium utilized. Where the reproduced size of the negative is so large as to exceed the largest negative size commensurate with the camera size, a number of negatives are produced, matched and stripped to form one large negative. Although paper and film are often used, wet plate will produce a more exact match when stripped on to a new base. This procedure would not be permissible where color register is involved, because of the possibility of stretch and distortion. Color register negatives should be on a glass base.

The manner in which negatives are stripped or imposed is a very important controlling factor in the choice of a class of sensitive medium. The type of stripping and plate-making equipment relates strongly to the proper choice of a sensitive medium, in addition to the stripping method employed. Variations in jobs limit the stripping and indirectly the negative medium. This is considered from the standpoint of the number of pages of type matter to the job size of press plate and paper, number of inserts, number of half-tones, whether type or screen effects are to be superimposed, and whether the stripping requires close register.

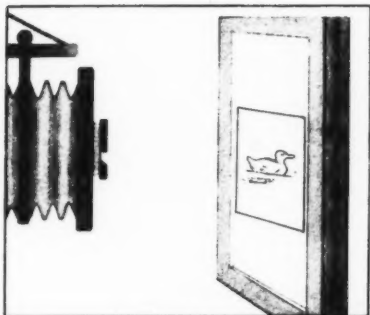
## Essential Qualifications of Perfect Half-tone Negative

Basically, the essential qualifications of a perfect line negative apply equally well to a half-tone negative, as both are classified as contrast negatives. The line negative is a sharp reproduction of a line original, while the half-tone



*Such appealing reproductions as this would be impossible in photolithography without the half-tone negative. There are a number of variable factors governing most effective use of half-tone negatives, as Mr. Hiller points out in this article. Like all worthwhile developments, they can be easily misused if they are not applied by one who clearly understands the effects resulting from the many variable factors.*





*The illustrations on this page courtesy of Spaulding-Moss, Boston, Mass.*

negative is a sharp reproduction of a continuous tone original in the form of opaque dots surrounded by transparent areas. The position of the screen parallel to the sensitive medium accounts for the inclusion of such factors as conjugate foci, stop combinations, screen pitch, screen angle, screen distance, flashing, etc. The effect of this parallel position of the screen to the negative during exposure produces an optical transformation of the gradations of continuous tone of the original into a negative of various sized opaque dots arranged in geometrical order and representing the majority of the minute portions of the continuous toned detail. Unfortunately, the mechanical nature of our reproductive printing process requires that the continuous gradations be converted into variations of dot sizes and an ensuing loss of some detail is prevalent in the record.

Since only two tonal values can be represented by a solid area of ink, whether it is a pin point dot or a thumb nail dot on a white background, some method of recording the delicate gradations or intermediate tones of the original is necessary. The introduction of the half-tone screen facilitates this recording of the delicate gradations or grays of the original by converting the reflected light from these areas into a screened negative.

Without this optical device for transforming the intermediate tones into dots, only two regions of the original could be planographed on the paper, namely: the highlights, as white paper, and the solid black areas, as shadows. The half-tone screen converts the middletones into various sized dots which only cover a portion of the area of the paper and allow the remaining area (color of the stock) to appear in inverse proportion to the amount of paper covered by the ink and as a direct gradation of tone as seen in the original.

A perfect half-tone negative represents in the highlight areas (densest areas) the record of the greatest reflection of light from the original as small transparent dots or large overlapping round opaque dots.

The intermediate tones are represented as smaller dots commensurate with the amount of light reflected from the

## Buying Interest Does Not Always Show Its Face

Let's not assume that there is no interest simply because it does not declare itself. Time and time again when a prospect denies interest it means that he is covering up interest and is not at all an indication that no interest exists. The shrewd buyer very often feels that he lays himself open by showing interest. Let's not be fooled in this regard. Let's tackle each sales opportunity with full confidence that a complete explanation of the advantages of using photo-lithography will arouse interest, and let's go along on that confidently, regardless of whether or not the prospect confesses to interest as we go along.

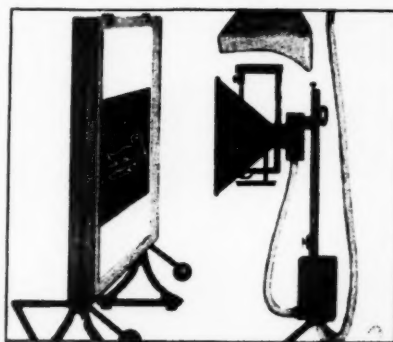
## The Memory Lingers On

The supply men and customers who were among the 125 people present at the second annual Christmas party held by the Employees Club of the Boro Photo Lithographers, Inc., of Brooklyn, are still talking about the affair. It was held at Hotel St. George, Brooklyn, December 17, and was completely in charge of the Employees Club, which provided plenty of entertainment in addition to a good dinner.

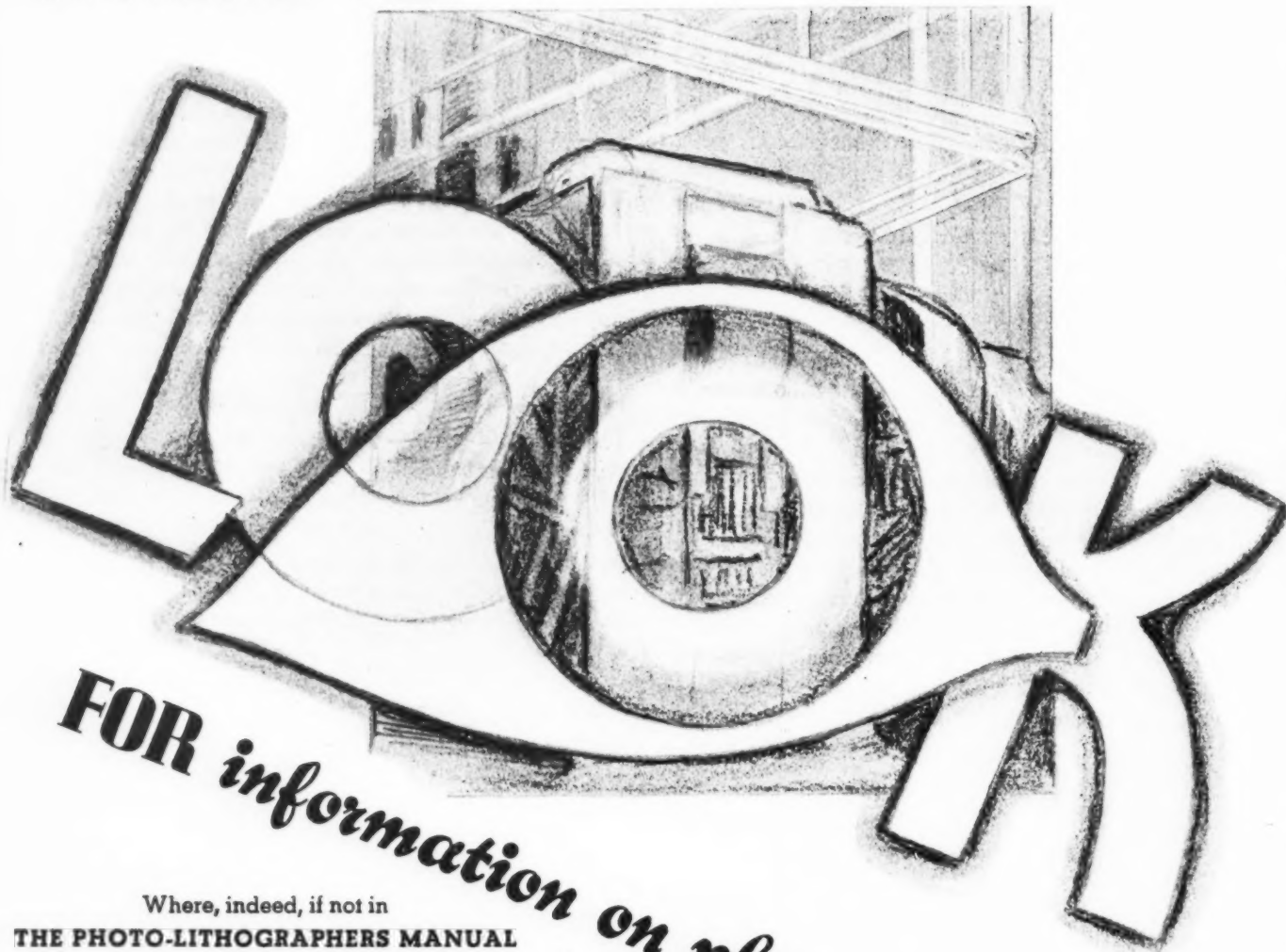
original. A true half-tone or middle value is represented as a checker board formation of opaque dots and transparent regions, the size of the dots being determined by the lineage of the screen.

The shadows, or most transparent areas of the negative, bear small opaque round dots which aid the recording of the essential detail of the darker regions of the original. Each representative area of the negative bears a definite relationship to the tones of the original and to the manner in which the negative is to be used when transferring the image upon the planograph pressplate. As the negative is a means to an end in recording the true original tones, its production should be the result of careful analysis of copy, deliberate choice of exposure durations, and carefully executed mechanical and chemical processing.

*(Editor's Note—The concluding part of this very interesting article by Mr. Hiller, which will outline and discuss the various theories of screen action, will appear in the February issue of THE PHOTO-LITHOGRAPHER.)*



# WHERE TO



**FOR information on photo-lithography**

Where, indeed, if not in  
**THE PHOTO-LITHOGRAPHERS MANUAL**

*If you sell or would like to sell photo-lithography, the Manual is packed with immediately usable sales plans, stratagems and ideas. It is short on psychology and long on practical ways to make more money out of selling.*

*If you are interested in plant production, the Manual gives you over 175 pages full of information gathered from the experience of some of the most successful production experts in the field.*

*If you are concerned with management, you will find in the Manual complete descriptions of organization methods as used by outstanding photo-lithographers to build large and profitable businesses.*



Attractively and durably bound in linen on heavy board, the Manual's 337 8 1/2" x 11" pages are lithographed throughout. The type is large...easily read, the paper is heavy and of good quality. A book worthy of a prominent place in every technical and business library.

Price \$4.00, plus postage.

## *The* PHOTO-LITHOGRAPHERS MANUAL

WALTWIN PUBLISHING COMPANY

•

1776 BROADWAY, NEW YORK

## Requirements in Paper

(Continued from page 23)

Foundation, suggesting that paper for lithographic printing purposes be made with extreme directional characteristics. By this is meant that as many of the fibers as is practically possible be made to lay parallel to the machine direction of the paper. The reason for this is that cellulose fibers change very little in their long dimensions with changes in moisture content, while the width or cross direction of the fiber is capable of relatively large changes under the same conditions.

Paper, made in this manner, would run through a series of successive printings with the danger of misregister occurring only in one direction. With a proper choice of grain in the sheet, this changeable direction can be chosen as the one capable of correction on the press. It has not as yet been found possible to prevent the dimensional changes in pulp fiber due to the taking on or loss of moisture. It is possible, however, through proper management of the mechanical treatment of the fibers in the paper mill to greatly minimize this reaction to changing moisture contents.

Curling tendencies induced by moisture changes should not be confused with the so-called "build in" curl. The latter is due to inequalities in the characteristics of the top and bottom sides of the sheet.

**FUZZ:** The collection of loose pulp fibers on the plate or in the ink fountains, due either to free fibers sticking up from the surface of the paper that are subsequently pulled from the sheet or to slitter dust, is, of course, very undesirable. The peculiarities of the printing plates used in this process again render them susceptible to damage by such accumulations. As intimated above, the remedy for the first source of fuzz and the dusting of fillers is the application of surface size. The remedy that will prevent the difficulties due to slitter dust is scrupulous cleanliness and care in the slitting and winding of the paper. Sharp slitter knives properly adjusted are a large part of this preventive program.

**HARDNESS:** The previously mentioned peculiarities of lithography allow the use of papers that are considerably softer than those that can be used in most of the other printing procedures. The soft so-called art papers are handled satisfactorily by either of the two processes under discussion. At the same time hard papers can be utilized with pleasing results.

**MISCELLANEOUS:** One factor that should be mentioned here, appearing as an occasional defect in paper being lithographed or printed on the offset press and causing the plates to become quickly damaged, is a certain type of erosion or corrosion. In situations such as this it is possible to consider two major sources of the



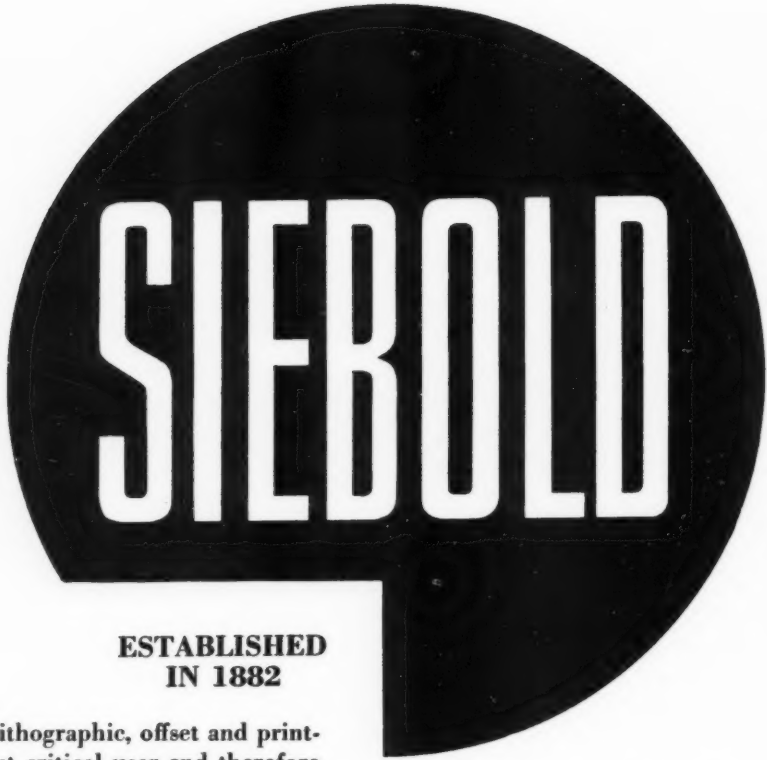
difficulty: one, the ink and, second, the paper. From the standpoint of the paper, there seems to be very little known concerning the causes of these complaints. It has been suggested that excess acidity in the paper might be the destructive agent. If the difficulty seems to be more of the nature of an erosion of the plate, hard harsh fibers in the paper might be responsible as well as any mineral fillers that might be present in the paper. It may be that modern closed white water systems can be the source for the inclusion of sufficient amounts of neutral salts into the paper to be a disturbing factor.

As pointed out early in this discussion, any material that will affect changes in surface tension forces are dangerous in that they will cause the spreading of the ink into the clear areas. It is only necessary to mention other desirable requirements in the paper such as: accurate square trimming, good jogging of the sheets, the elimination of static electricity, and proper labeling.

**CONCLUSION:** It will be seen from the foregoing discussion that the paper maker has many points of interest in common with the lithographer in his endeavor to supply a paper that will be acceptable for a particular job intended, and that will find ready acceptance with different lithographers, each having different trade practices. The production of papers suitable for lithographing and offset printing is a task requiring a great deal of precision. Since the paper manufacturers make paper in relatively large amounts at a time, paper destined for the use of many different lithographers to be used for many kinds of jobs and used under varying humidity and other conditions, it is evident that the characteristics of the paper must be an average of all of those known to be desirable.



**OVER  
A HALF CENTURY  
OF SERVICE**



# SIEBOLD

**ESTABLISHED  
IN 1882**

## **INKS**

Our reputation in the manufacturing of lithographic, offset and printing inks has withstood the test of the most critical user and therefore we are able to give our customers greater value and stronger color for the money today than ever before, after all impressions per pound means more than mere price. There is no problem a problem to Siebold.

*Supply Price List, Offset  
and Safety Ink Specimen  
Books upon request.*

## **SIEBOLD'S SAFETY INK**

At a comparatively small cost by printing in pantographic design or otherwise you can manufacture your own safety paper, using any type of litho offset plate including dampers as this is not a water sensitive ink.

## **PHOTO LITHO CHEMICALS**

Each item has been individually tested and found to be best suited for the PHOTO OFFSET LITHOGRAPHER.

## **SIEBOLD'S ROLLER DEPARTMENT**

Fully equipped to supply your wants such as Smooth and Grain Leather Rollers, Molleton and Muslin Covers, also full selection of Hand Rollers, both Rubber and Leather for transferer's and prover's use. These are of our own manufacture and our half century reputation is in back of every one.

# **J. H. & G. B. SIEBOLD, INC.**

*Lithographers' Supplies*

*Office:*

**47-49 WATTS STREET  
New York, N. Y.**

*Factory:*

**99-105 SIXTH AVENUE  
New York, N. Y.**

**Telephones: Walker 5-9474-5-6**

**OFFSET BLACKS • COLORS • SAFETY INKS • ROLLERS • MOLLETON • DAMPER COVERS • RUBBER BLANKETS**

## Why the Rapid Growth?

(Continued from page 22)

Let's assume the material to be included consists of:

1. A cover printed in black from last year's bulletin.
2. Four pages of instructions interspersed with three pages containing a sales chart, a floor plan, a ruled form for the use of salesmen, and a collection of newspaper clippings.

Many an advertising man is called on to turn out such a piece with the admonition, "Don't spend much because it goes to our own men. But be sure to have it ready by Friday noon!"

Now let me briefly cite the several unique advantages of photo-lithography and the combination run in helping you to obtain this booklet quickly and on time.

First, typewritten sheets constitute first-class copy for the photo-lithographer. No type-setting is necessary.

Second, no engravings need be made for the reproduction of the chart, newspaper clippings, and other illustrative material. All you need do is give the photo-lithographer one of each. Without extra charge, unless special arrangements are specified, he will reproduce them as easily as the typewritten copy.

Third, the actual printing of the booklet is done along with the printing of other material for other people, thus splitting the cost of the job.

(Show several pieces of copy, including illustrations; also negatives.)



So much for the benefits of the combination run. Further elaboration of its advantages might lead you to believe that it represents the most important part of photo-lithography from the buyer's standpoint. Such is far from true.

Photo-lithography has turned out some of the most beautiful, most elaborate pieces of sales promotional material ever produced. And they are likely to result in even greater admiration of photo-lithography when they are critically compared with similar pieces turned out by other means. One of the chief advantages of photo-lithography—its lower cost in many instances—is evident only on the end-of-month records.

Now I ask your indulgence for a few minutes while I summarize the advantages of photo-lithography.

### Advantages of Photo-Lithography

1. *Line and halftone engravings eliminated.* One large, light, comparatively inexpensive plate carries *all* of the copy—whether it be type matter, line illustrations, or illustrations with fine tonal gradations such as photo-

graphs and wash drawings. Line illustrations can be reproduced without extra charge over straight type matter. Half-tone subjects are reproduced at extra cost that runs considerably lower than the cost of regular halftone engravings. If they have been previously screened there is no extra charge.

2. *The photo-composing machine* in a series of rapid, precise operations completely obviates the need for electrotypes, stereotypes, and other cumbersome, less accurate, and more expensive duplicating media . . . Alignments to the thousandth of an inch are accomplished by the photo-composing machine no matter how many times a subject is repeated. Furthermore, there is no warping of wooden bases to contend with; also no variations in height to add to the time required to lock-up and make-ready a form for printing.

3. *Re-typing service* whereby typewritten matter can either be squared up on right side or, by use of one of the special re-typing machines, can be typed in one or more of a number of attractive type faces, eliminates need for the setting of printer's type. It costs less and in many instances can be just as attractive in appearance.

(Show samples of re-typed and other copy.)

4. *More rapid production on press* is another important advantage of photo-lithography. There are several main reasons for this.

The nature of the process permits use of uncoated, absorbent papers, even when half-tone subjects are reproduced. This means quick drying of inks on rapidly delivered sheets, and very little danger of the offset of ink from one sheet to another. Then, aside from the mechanical nature of the lithographic press, permitting faster operation, it can be run at top speed without danger of forms, made up of many units, working loose and causing trouble. On the lithographic press one tightly clamped plate takes the place of forms consisting of type matter assembled with engravings and other material.

5. *Photo-lithography*, permitting use of non-glaring, soft finished, specially textured, and, if desired, bulky papers, gives the advertiser a much wider latitude in the effects obtained because paper can be made very much a part of the scheme. If the advertising piece has few pages, the use of a high bulking paper can contribute a lot to the impressiveness of the piece without sacrifice of other desirable qualities.

6. *Photo-lithography* was of great use during the World War for the reproduction of entire books, originally published abroad, which, because of war conditions could not be obtained from the original sources. It has continued to be a popular process for such work because by the simple transfer, photographically, of the printed pages of one original book to the lithographic plate, additional copies can be obtained without need for typesetting or electrotypes. Furthermore a book reproduced in this way,

**YOU CAN GUARANTEE SATISFACTION TO YOUR CUSTOMERS  
ONLY WHEN YOU CAN RELY ON YOUR OWN EQUIPMENT**

**.... so be sure to examine this pump**

Air from cylinder through by-pass in cylinder head enters this slot on its way to the outlet above. No opening in curved inner surface of cylinder means quiet operation.

Enclosed stud in piston holds wing close to cylinder at top, preventing loss of air pressure.

Air coming in at inlet at side comes through this slot into cylinder head by-pass and thence into the cylinder. No opening in curved inner surface of cylinder means quiet operation.

INLET threaded for standard iron pipe.

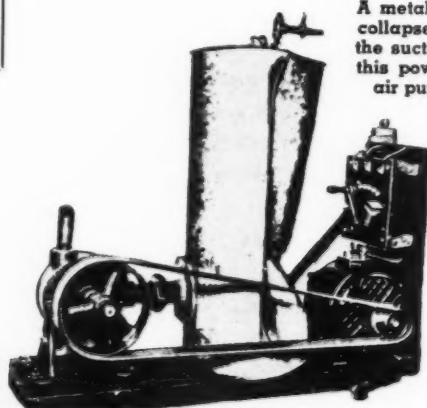
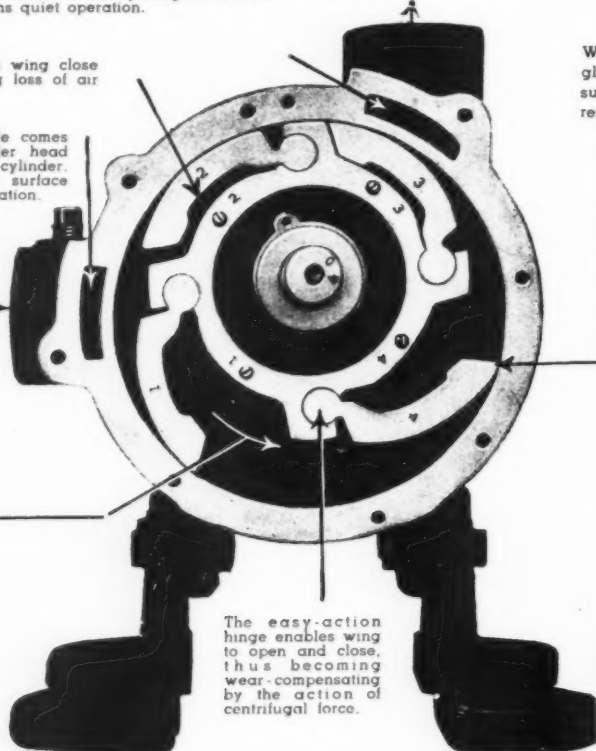
Direction of rotation, showing how extended wing scoops up the air admitted at inlet, each revolution carrying it around to the outlet.

OUTLET threaded for standard iron pipe.

**THE WINGS SCOOP UP THE AIR**

Wing and cylinder surfaces become hard and glassy, insuring a perfect fit and positive pressure or vacuum. No composition tips to require renewal frequently.

A metal tank collapsed by the suction of this powerful air pump.



Here you have the only pump that "TAKES UP ITS OWN WEAR" and which will continue in your service for a long period of years as it has been doing as standard equipment on so many machines in the printing, binding, packaging and paper industries for 50 years.

**LEIMAN BROS. VACUUM PUMPS** *also used for blowing*  
PATENTED... ROTARY POSITIVE

GET THE FREE INFORMATION

**LEIMAN BROS., Inc.** 110 CHRISTIE STREET, NEWARK, N. J.  
LEIMAN BROS. NEW YORK CO., 23 (NN) WALKER ST., N. Y. C.

MAKERS OF GOOD MACHINERY FOR OVER 50 YEARS





especially if it is technical in nature, will retain with photographic fidelity the appearance of the original, including all peculiar and special characters and illustrations.

7. *Less Make-ready.* Preparing the lithograph plate when it is on press for actual running requires much less time than is needed for the equivalent operation in some other popular processes. One outstanding reason for this is that all of the copy on the one accurately surfaced lithograph plate is practically of uniform height. In most work there need be little levelling of heights of various parts of the plate. Furthermore, the fact that transfer of the inked images from the metal plate is first made to a resilient rubber blanket helps reduce the make-ready time.

(Show zinc plate, ready for press, and rubber blanket.)

8. *Solid Areas.* Photo-lithography is supreme in work such as 24-sheet posters and work requiring large areas of solid color. Much work of this sort could not be printed from electrotypes because they could not be made large enough. Large photo engravings are expensive. And even if they could be made, the sheets printed from them by some processes other than photo-lithography would lack the solid and uniform lay of ink that characterizes lithographed sheets.

9. *Enlargements or "Blow-Ups"* of one- or multi-color subjects are frequently made by the photo-lithographic process, often to size 44 x 64 inches, without the use of engravings. The lithographic color correction method makes possible the economical production of a subject in many sizes with the color correction of only one set of positives.

10. *Combination Work.* Many kinds of internal forms, bulletins, etc., can be reproduced by the photo-lithographer in "combination" runs at remarkable savings both in time and money. For such runs orders calling for lithographing in black on a standard white bond paper are assembled from different customers. Then they are run together, with the cost of several important operations split among all of the customers.

(Show several lithographed combination sheets.)

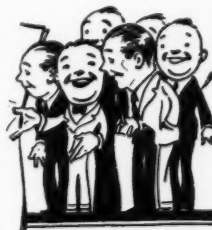
11. *One Plant Responsibility.* Many buyers of printed matter lament a system of production whereby the responsibility for the final job is divided among several or more contributing services such as engravers, typesetters, and electrotypers. Not only does such a system result in loss of time, but if a slip occurs, it gives opportunity for "passing the buck," with the consequent inability of the buyer to fix responsibility for mistakes on anyone. This is avoided in photo-lithography. When copy is turned over to an up-to-date photo-lithographer, all stages of the production are handled in his plant and become his sole responsibility.

12. *Plate Storage and Reruns.* By arrangement with the photo-lithographer, you can have the plates containing your work stored for an indefinite period of time, ready on short notice to be put back on press for repeat runs. Storing these light, thin, and comparatively inexpensive plates is quite different from the stowing in racks of heavy forms made up of type and engravings. Even if needed type is not removed from such forms—and that is a common occurrence—there is the constant likelihood that wooden base engravings and electrotypes will warp, thus causing extra expense for remounting or extra make-ready when they are again put on press.

In conclusion: The best test of any industry's product, aside from actual use, consists of critical and comparative examination of that product.

I have brought along a number of samples of photo-lithography—booklets, broadsides, folders, maps, etc.—both in black and white and in color.

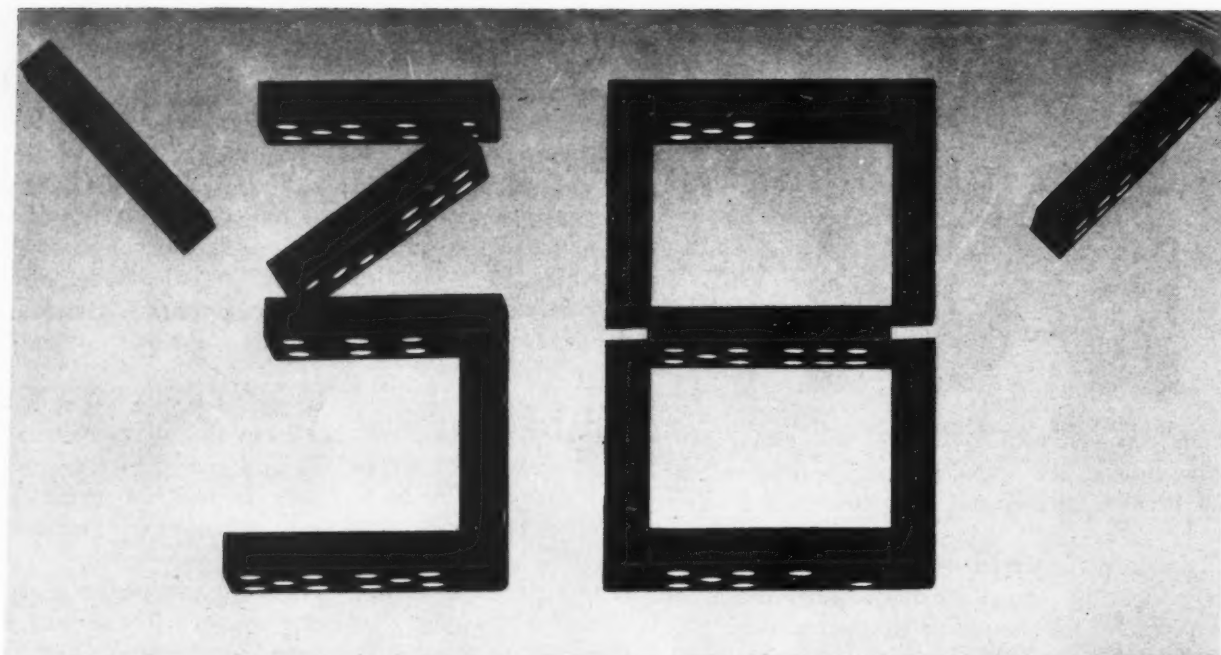
You are invited to come up and examine these samples at close range. Such examination, as much as anything I have told you, should "sell you" the benefits of photo-lithography for many run-of-the-mill and also very particular reproduction requirements.



### Thomson Made Advertising Manager of Champion

The Champion Paper and Fibre Company, Hamilton, Ohio, has appointed Alexander Thomson, Jr., advertising manager.

Mr. Thomson has been connected with the company for ten years. He was employed successively in the paper mill, the research department, and in sales promotion and advertising work at Hamilton, and then was transferred to the Cincinnati office where he was engaged in selling, and also was active in advertising and printing craft organizations.



## ANNO DOMINO

**Resolved:** "I am determined to improve the quality of my product."

Domino Offset Black will help you achieve this goal and you too will be numbered among the many lithographers who have recognized its unusual properties.

A real Black of the utmost density---prints clean and sharp with no fill-up even in the finest halftones. Excellent working qualities and always dependable.

Investigate and see why Domino dominates the field.

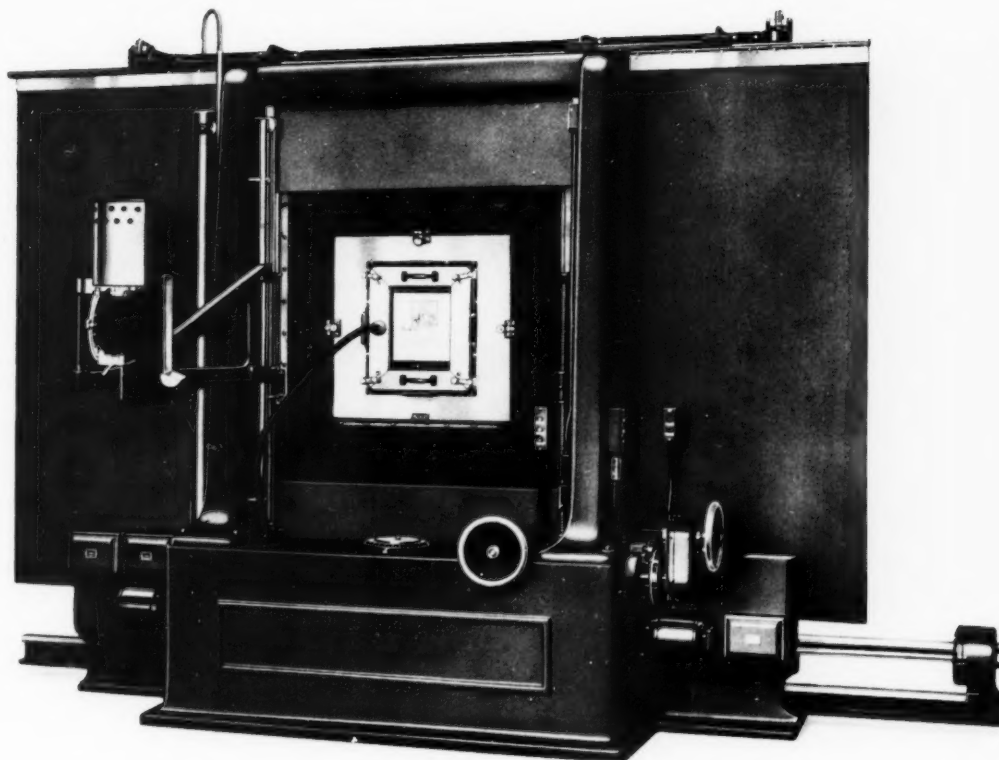
### THE FUCHS & LANG MFG. CO.

Division General Printing Ink Corporation

100 SIXTH AVENUE · NEW YORK

Boston    Chicago    Cincinnati    Cleveland    Fort Worth  
Philadelphia    St. Louis    San Francisco    Los Angeles

Q. WHY do most of the larger lithographers and plate makers for the trade use the RUTHERFORD PHOTO-COMPOSING MACHINE ?



A. BECAUSE of its accuracy, speed, ease of operation and durability. These are the foremost reasons. There are others. If you write for a descriptive folder, you will see why the RUTHERFORD PHOTO-COMPOSING MACHINE is so popular. !

## RUTHERFORD MACHINERY COMPANY

DIVISION • GENERAL PRINTING INK CORPORATION

608 So. Dearborn St.  
Chicago, Ill.

920 St. Sophie Lane  
Montreal, Quebec

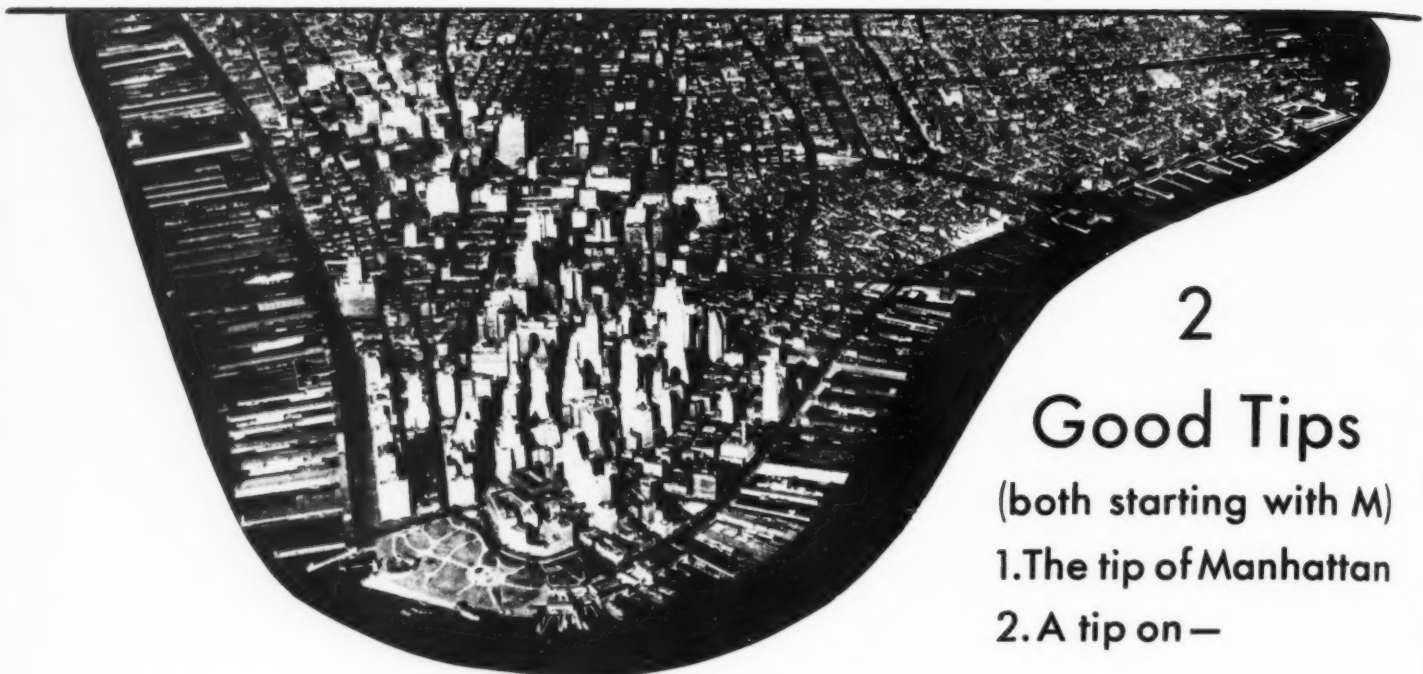
MAIN OFFICE:  
100 SIXTH AVENUE  
NEW YORK, N. Y.

1425 Folsom Street  
San Francisco, Cal.

176 John Street  
Toronto, Ontario

GENERAL PRINTING INK CORPORATION - Divisions: American Printing Ink Co.,  
Eagle Printing Ink Co., The Fuchs & Lang Mfg. Co., Geo. H. Morrill Co.,  
Rutherford Machinery Company, Sun Chemical & Color Co.,  
Sigmund Ullman Company





2

## Good Tips

(both starting with M)

1. The tip of Manhattan

2. A tip on —

# MONTGOMERY OFFSET

Sparkling highlights, such as those in this aerial view of the lower tip of Manhattan, retain most of the sparkle of the original when they are printed with good inks and careful presswork on Montgomery Offset.

You will find less need for drop-outs in your negatives when Montgomery is used because it has a brilliant whiteness and its hard tub-sized surface helps to keep the high-lights clean and the solids strong and dense.

So much for just one of the features of Montgomery contributing to high quality in the appearance of the finished job.

The contribution of Montgomery Offset to economy in production is considerable. There are two main reasons—

Being so free from lint, fuzz, grit, and excessive alum, you will stop the press fewer times to clean the blanket when you use this paper.

It is pre-humidified. That means accuracy in color register; also more accurate and faster feeding and folding.

Why not  
try  
**Montgomery  
Offset**  
on that  
next job?

**Marquardt & Company, Inc. Fine Papers**

153-155 SPRING STREET, NEW YORK TELEPHONE: CANAL 6-4563

## Management Problems

(Continued from page 41)

The management should always invite criticism and suggestions from employees. Good and practical suggestions are often made by them. It very often happens that an employee may be reluctant to make suggestions for fear of ridicule or that they will be given no consideration. I have had many employees come to me with their grievances, and I certainly feel that the management makes a mistake where it does not invite the confidence of their employees. Not only may it be that practical and worthwhile suggestions are forthcoming, but also it gives the employee a sense of importance and he feels that he is more than a mere cog in the organization, and therefore takes a greater personal interest than he might otherwise do. I know of a successful printing plant that has this slogan placarded in various parts of the plant: "What Can I Do to Improve This Business?"

### WHAT KIND OF INSURANCE?

Good management should consider a carefully planned insurance program. May I suggest a few types of insurance just to illustrate the scope: fire on plant and contents, fire on customers' copy and materials, sprinkler leakage, explosion, use and occupancy, public liability, burglary and theft, payroll and messenger robbery, forgery, fraud and fidelity bonds, workmen's compensation, life insurance on the lives of the officers and valuable employees.

It is advisable that the management take counsel with its brokers and accountants to determine just which of these policies are advisable for their business, and with which companies to place the insurance. The set or manual rates are determined by the state authorities. Insurance carriers are required to write according to those rates. However, there are some companies that, because of favorable experience in the past, are privileged to write at least 10% below such manual rates. A saving may often be made by insuring in such companies.

A word of explanation as to *Use and Occupancy*. Assume that your plant was forced to suspend operations because of a fire or some other misfortune. Some expenses, such as officers' salaries, rent, telephone, do not change. Frequently, it is necessary to retain valuable employees, and if the stoppage is only for a few days, it may be essential to keep the entire force. In such a situation, expenses are continuing without compensating income. Under this policy, the insurance company will reimburse the assured for such expenses, and also for the profit which, by past experience, would have been earned had there been no suspension of operations.

Where a company is in good financial circumstances, it may be advisable to take out insurance on the lives of officers and certain valuable employees. Of course, this is in the nature of an investment and, incidentally, is not allowable as a deduction for tax purposes.

The management should always be careful to have adequate coverage. Under the standard New York fire policy, the assured is required to carry at least 80% of the value of the property at the time of loss. Assuming a plant worth \$100,000, a coverage of \$80,000 will be required. If the coverage is only \$40,000, then in case of a partial loss, the recovery will only be one-half of the damage. In other words, the assured can only recover that proportion of the loss which the insurance carried bears to the amount of insurance he should have taken out. This formula does not work literally in a case of a loss in excess of 80% of the value of the property, because in such an event, application of the formula would result in a figure in excess of the coverage and, of course, the assured is always limited in his recovery by the face amount of the policy.

One should not go to the opposite extreme and carry insurance in excess of the value of the plant and contents. In such a case, policies provide, usually, for contribution between the insurance companies so that in no event may the assured recover more than his actual loss. If you over-insure, you will be paying premiums needlessly on such excess insurance.

In working out an insurance program, I would urge consideration of insurance in mutual companies. There are many mutuals which are not to be recommended; but there are some mutual companies that are just as strong as stock companies and have excellent financial records. Although the initial premium may be the same, yet a rebate is almost always forthcoming at the end of the year, which will stand to reduce insurance costs. I have in mind a company who three years ago spent \$9,000 for insurance during one year. They called in their brokers and accountants and thoroughly revised the insurance set-up, and two years later the cost of insurance for the previous twelve months amounted to \$6,700—a very substantial saving.

### THE CURRENT TAX SITUATION

I would like to spend the next few minutes discussing the present tax situation. The corporate tax structure at the present time is quite staggering. There seems to be no end of taxes which must be paid. However, there has been sufficient pressure brought to bear so that we can expect a revision of Federal corporate taxes within the very near future.

An amendment to the Revenue Act enacted this year, I think, is of special interest to both corporate and individual business. The amendment provides that no deduction may be made for interest, for salaries or expenses incurred during the year where the following conditions exist: First, where the recipient of the moneys is a member of the taxpayer's family, or where the taxpayer is a corporation and the recipient owns more than 50% of its stock, directly or indirectly. Second, where payment has not been made during the taxable year or within two and

# Offset Printers:

*Please investigate*

the new Schlesinger deep-etch process, amazingly simple, quick and safe; giving unrivalled printing results by the combination with the new Schlesinger super-hard enamel process. The plate is ready for the printing press twenty minutes after the exposure to the light.

Please also investigate the new Schlesinger inking device for producing safer, cheaper and better work. Numerous inking devices already delivered have proved this fact.

*Firms interested are requested to write to*

**Mr. Alfred Schlesinger**

**2 WHITEHALL COURT, LONDON, S. W. 1.**



one-half months after its close. Third, where the recipient reports on a cash basis, and not having received the moneys is not required to report the income at the time.

This amendment was enacted to prevent the practice of businesses taking such deductions in their tax returns, whereas the recipient would not withdraw the money and report it as income until such a time when he had little or no other income, and thus pay a tax substantially below what he might otherwise be liable for had he taken out the funds when deduction was made by the paying company. Much publicity was given recently to tax evasion and avoidance. Newspapers played up the element of motive in various plans for avoidance of taxes. But, there is a clear-cut distinction between *tax avoidance* and *tax evasion*. Tax avoidance is compliance with the law. If the Treasury Department allows a certain procedure whereby taxes may be minimized, by all means the taxpayer is entitled to take advantage of it. All that is required is that we comply with Treasury regulations. If we do so, that is all the government can reasonably expect. No one of us wants to pay taxes which we are not required to pay.

*Tax evasion*, however, is something entirely different. That is avoiding taxes through illegal methods and should be censured and deplored.

At present, the corporate tax structure is as follows:

1. A normal tax of 8% to 15% on the net income for the year.
2. A capital stock tax of \$1.00 a thousand on the valuation declared for the business.
3. Excess profits tax of 6% to 12%, based on such declared valuation.
4. An undistributed profits tax of 7% to 27% on current earnings which have not been distributed as dividends.

There are other taxes which a corporation must pay. Social Security Taxes will amount to 4% of the payroll during 1938. We have a Franchise Tax in New York of at least 6% of net earnings. There is also a business tax in New York City of 1/10 of 1% over gross earnings of \$15,000.

In regard to the Excess Profits Tax, if a declared valuation has been made, a certain profit is allowed before the tax is assessed. Assuming a profit of \$100,000 for a year, the first \$10,000 is exempt, the next \$5,000 is taxed at 6%, and the balance at 12%. The bad feature about this tax is that the declared valuation was merely a gamble. The management had the right to declare any value it saw fit, and if it was pessimistic about future operations and declared a very low valuation, and subsequently it turned out that profits were much higher than expected, the exemption naturally would be small and the tax heavy. A bad guess on the part of the management would thus work a tax penalty.

Another provision of the tax law which has aroused considerable criticism is that of Capital Gains and Losses. Assuming that a business shows a net profit of \$100,000 from ordinary operations during 1937, and also that the owners had been forced to dispose of part of their plant at

a net loss of \$100,000. Actually, the company would have had neither profit nor loss, but the law states that the capital loss may be taken only to the extent of \$2,000, and, therefore, there would be \$98,000 of taxable income.

The Undistributed Profits Tax has worked hardship in cases where companies have needed their funds for expansion or for payment of fixed obligations, or because of an accumulated deficit they are prevented by State laws from paying out current earnings as dividends. No provision is in the tax law to alleviate such problems.

#### PROBABLE TAX REVISIONS

Nation-wide pressure has resulted in a definite promise on the part of the administration to revise the corporate tax structure. The nature of the revision will probably take the following form: Some change will be made that will reduce the burden imposed by the Capital Stock and Excess Profits taxes; also by the capital gain and loss provisions of the law. Insofar as the Undistributed Profits Tax is concerned, the committee has tentatively accepted a proposal to exempt corporations from the tax, whose profits are less than \$5,000. There probably will be a reduction in rates on profits between \$5,000 and \$50,000. Likewise, there will probably be an allowance for plant expansion, payment of fixed liabilities and other cases where the company is not in position to pay out its profits as dividends. I believe a tax law will also be enacted to provide for the carrying over of loss from one year to the next for the purpose of the Excess Profits Tax, Undistributed Profits Tax, Capital Gains and Losses and possibly for normal tax purposes. It is important to realize that the government is working on a business basis, and that if there is any reduction in tax rates, it will have to make up this income in some other way—either by broadening the base in taxing individual income, a manufacturers' excise tax or by some other means.

#### TO SUMMARIZE—

May I reiterate the principles of management which I think are important and should be borne constantly in mind: cooperation between sales, production and credit departments, proper forecasting of operations, frequent financial statements, attention given to financing, costs, insurance and personnel problems. Likewise, an understanding of the tax structure is very helpful.

In conclusion, I would strongly urge the management of every business to take counsel with the firm's accountants, whenever problems arise. In our profession we have gained a considerable amount of useful knowledge through constant contacts and long experience. We are usually paid on a monthly-retainer basis, and it costs the client no more to take advantage of whatever additional service we can render in the way of advice. Certainly, we are always interested in our client's progress and welfare, to the end that the business may operate profitably and efficiently.

# TECHNICAL EDUCATION A VITAL NEED

Says PRESIDENT PAUL A. HEIDEKE

National Association of Photo-Lithographers

THE efforts of science and invention have resulted in remarkable progress, technically, in photo-lithography. The very rapidity of this progress has resulted in the industry being well-equipped with new equipment and methods, but woefully lacking an established program of educational training to equip men to use efficiently these many new inventions in equipment and technique.

Some way must be found to encourage technical schools to develop courses that will equip young men in the practical application of a thorough scientific knowledge of these new technical developments. Otherwise the progress we have made will stagnate, working to the detriment of all now engaged in the industry.

Technical schools would afford the best means of supplying such training. Their orderly processes are substantial and are not likely to over-crowd the needs of the industry.

It is my hope that everyone in the photo-lithographic industry will contribute his efforts and suggestions to help provide such opportunities along educational lines. They are urgently needed so that full advantage can be taken of the fine progress that has been made in the way of technological developments. Furthermore, the availability of such opportunities will encourage ambitious young men to train for service in our industry, in which their skill will be most welcome.

## EQUAPO

"ANOTHER TRIANGLE TRIUMPH"

### A NEW OFFSET BLACK THAT GIVES AMAZING RESULTS

This brand-new Offset Black Ink our chemists have recently perfected has a density that will surprise you. It works smoothly on the press; has all the coverage you expect; dries quickly, yet does not tone down; gives to solids that rich, velvety effect your customers like, yet prints type and

fine details of halftones as clean and sharp as could be desired. Test out EQUAPO on the next job for a fussy customer. You will then agree that it is the finest offset black that has ever been produced with complete opacity, richness of tone, yet moderately priced.

Two other inks we have at last perfected and offer to the lithographic trade as the best of their kind are a Permanent Persian Orange and a Transparent Permanent Yellow. These will not drop out, and are free from those defects you may have encountered in other yellow and Persian orange inks. Test out these inks, too, and you will be agreeably surprised at the results they give.

*TRIANGLE INK and COLOR CO. INC*  
*Manufacturers of Fine Litho & Printing Inks for All Purposes*

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## TECHNICAL DEPARTMENT

By DR. L. R. MELOY

### Blue Prints on Glass as Aid in Map and Color Work

**I**N response to a large number of requests from subscribers and clients, I am presenting here an article on the use of blue prints on glass.

The use of this method lends itself very readily to the reproduction of maps where the colors of the highways must be different and yet register very closely. It also can be used to a great extent for greeting cards and the "fake" color process.

The advantage of the method lies in the use of only one photographic negative. This negative is used to print as many blue print positives as there are colors required for the job.

Of course there are many other uses for blue print plates, i.e. press plate keys, key plates for insuring register of film negatives, Duco plates for rephotographing and the "Photolac" plates, originally developed by Ellis Bassist; but we are concerned in this article only with the use of the blue print process for maps and other similar reproductions where a large amount of extra camera time can be saved.

There are proprietary solutions on the market for this purpose which are very good, but for the benefit of those who are equipped to make their own solutions, the formulas given in this article will be found satisfactory.

In working with the blue print on glass, any color or line desired to be retained in the final negative is rendered opaque or printable by treating such areas with the permanganate solution. Tints and shading may be laid down by using Benday or Tintograph designs, and solids and lines may be added by opaquing and ruling on the glass. All areas not desired in the final result are allowed to remain blue. When the blue print positives are correct, they are printed in contact with another blue print plate to make the final negative and after this negative is developed it is rendered opaque by the method given. The use of this negative for press plate making preserves the corrected positive from breakage and therefore saves many hours of work in remaking if broken.

To make blue prints on glass: Select pieces of glass which are free of imperfections. Wash thoroughly and scrub with pumice and water to remove all grease from the

glass. The following sensitizer is then flowed on the clean glass:

4 ounces of flake albumen dissolved in 20 ounces of water. The albumen should be dissolved by the bag method. Then dissolve 150 grams of ammonium bichromate in 12 ounces of water and add 1 ounce of photo-engravers glue with constant stirring, then add the albumen solution and mix thoroughly. After this, filter and allow to stand one day before using.

After the solution is flowed on the glass, place the plate in a hand whirler and whirl face down over a heater. Care must be taken not to overheat the plate during whirling.

When the plate is dry it must be backed with black paper or a water soluble black coating to prevent halation. The exposure is made in the regular way in the vacuum frame, using arc lamps. After exposure the plate is developed under running water and the paper or other backing removed. The plate is then placed in a tray containing a solution of 200 grams Toluidin blue No. 1 in one gallon of water. The plate remains in this dye until sufficiently blue, when it is taken out, rinsed of excess dye and dried quickly with a fan.

The plate is now ready for the artist to work on with permanganate, opaque, ruling, etc. The permanganate must be a strong solution containing about 5 ounces of potassium permanganate in one gallon of water. This is also used to make opaque the final negative. If much ruling or opaueing is to be done, it is better to coat plate with a plain albumen solution such as is used in wet plate work.

*(Questions and Answers on page 59)*

*"Judge of a man by his questions rather than by his answers."—Voltaire*

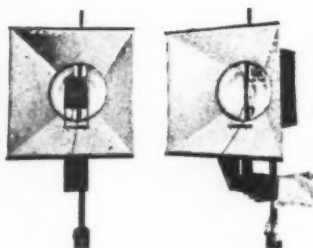
To make this Department livelier and of more value to every reader in 1938, we need your cooperation in this way:

Send us plenty of questions on technical problems. That will keep us on our toes, and we will try to give you the right answers.

Doing this may help not only you, but other readers who have similar problems.

Let's cooperate!





### NEW MACBETH ELECTIVE CLOSE-UP DIFFUSER

Use it or not, as you choose.  
The real answer to the question of diffusers.

If you want diffusers, push them up in place. If you want direct light, pull down with finger tips and diffusers disappear instantly.

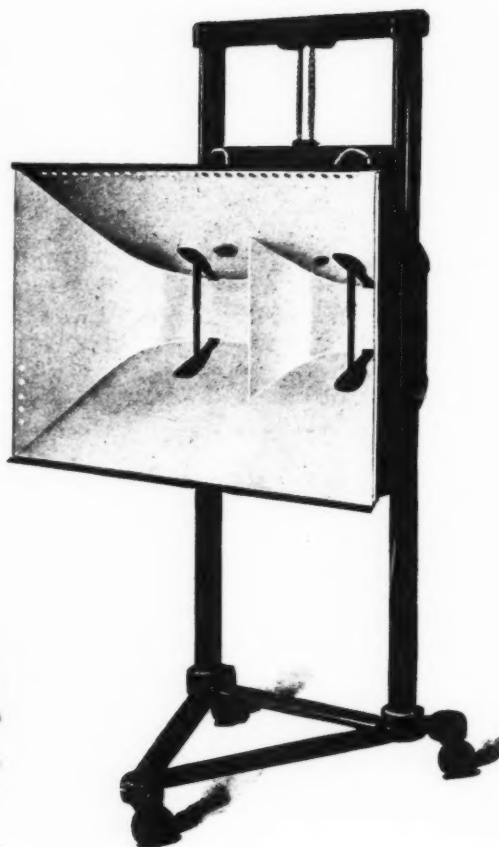
## WORLD'S BEST PRINTING LAMP FOR LARGE FRAMES TYPE B-16

Specially designed reflector builds up light on edges and corners of frame. Result—you can load frame to capacity and still edges and corners of print will come up without over-printing center. Speed without fuzziness or halation.

Full twelve-inch trim. It is only necessary to trim each set of carbons once. Burn five hours without re-trimming.

Mounted on counterbalancing stand. Lamp readily moved up or down. Large ballbearing casters make it easy to move lamp in any direction.

There is a Macbeth lamp for every job in the Graphic Arts.



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## World's Standard Photo Lamps

MACBETH ARC LAMP CO. 875 N. 28th St., Philadelphia, Pa.

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offset trade

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211-17 NORTH CAMAC STREET  
PHILADELPHIA, PENNA.

## Technical Department

(Continued from page 57)

### QUESTIONS AND ANSWERS

QUESTION: *I am a plate maker in a photo-offset shop, and would like to have you advise me in the following problem.*

*I work in an air-conditioned shop where the humidity remains at 50° constantly and the room temperature at 72°-77°.*

*What coating solution would be the best to use under such conditions?*

*Until recently I used the following solution:*

*14 oz. water plus 1½ oz. albumen*

*14 oz. water plus 1 oz. bichromate*

*added ½ oz. of ammonia water*

*but found out my plates started to develop too easily and consequently trouble started when plates reached the press, walking off, etc.*

*I added five more ounces of water to my solution and the plates develop just right and by experiment I can hardly rub the image off with flannel, and the plates also work nicely on press for at least short runs. We have not had any long runs to try this out on yet.*

*Still I am afraid my solution is not right. Isn't this too much bichromate, compared with the albumen contained in the solution?*

—Wisconsin

ANSWER: You will find that you can obtain consistently fine results by standardizing your albumen solution. The formula you are using has twice as much bichromate as is needed, and this solution can cause many other "head-aches" than those you mention. The standard ratio of 3 to 1 is always best, and with slight variations in density can be made to work properly on the grain you use, and can also be adjusted to your whirler speed.

The correct way to make this solution is to weigh out 3 ounces of albumen flakes and place them in a cheese cloth bag suspended in 32 ounces of water. The bag must be suspended in such a manner that it does not touch the bottom or sides of the container. After solution is completed lift out the bag and drain; *do not squeeze*. To this solution of albumen is added the bichromate solution made by dissolving 1 ounce of ammonium bichromate in 10 ounces of water. After mixing these two solutions, stir well but do not beat, and add 1 ounce of ammonia water 28%, or bring the pH of the whole solution to about 7.5. Filter and it is ready for use. Do not use bichromated albumen solution after the second day. It is preferable to use it only on the day it is made.

QUESTION: *Am enclosing a job with which we are having trouble. It's a work and turn job. We are very much satisfied with the first run but something went wrong with the second run. The first run was through the press last Friday night, and the plate remained on the press*

*for the second run first thing Saturday morning. The plate was washed and gummed and then cleaned with lithomagic after the first run. We always run into trouble when we handle a job this way.*

*I was at the Lithographer's Convention last month at Cleveland where I had the pleasure of meeting you. I thought that I received enough advice there to get us out of such trouble, but we are in the same mess.*

—Minnesota

ANSWER: From an examination of the press sheets submitted of the first run and the second run, it is my opinion that the operation of washing out the plate and gumming up was improperly done and it is also evident that the gum used was too thin or the pressman used a water sponge which thinned the gum too much.

The correct procedure follows: The plate must be well inked before the gumming operation is started. The gumming up must be done carefully, the gum being rubbed down evenly and smoothly and thoroughly dried. Gum solution for all operations should have a density of 14° Baume.

After the gum is thoroughly dry, the plate is washed out and put under the compound you are using or asphaltum solution, which must be rubbed down smoothly and thin and fanned dry.

You will find by observing the above rules that your work will print as well when you start up again as it did originally.

### 48 Orchids for Lanston

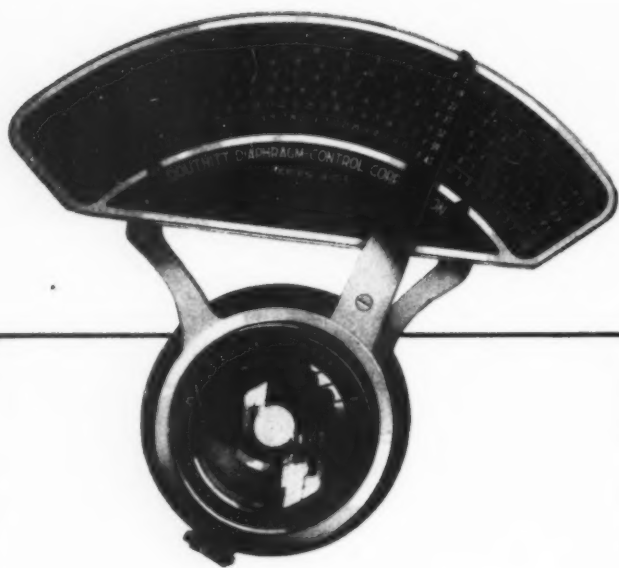
In connection with the exhibit of the British "Fifty Books of the Year," to be shown in various cities throughout the United States and Canada during the next three of four months, it is interesting to note that forty-eight of these books were machine-set on the Monotype.

In reporting the opening of the 1937 "Fifty Books" exhibition in London the London Sunday Times said: "The supremacy of the Monotype in composition is almost complete. Only one of the books is entirely independent of it. Only one other book is hand set and that uses a fount cast by Monotype."

The "Fifty Books of the Year," selected by a committee of members of the First Edition Club, London, from those published during 1936 in Great Britain, have been on exhibition in the American Institute of Graphic Arts, 115 East 40th Street, New York City. This exhibit has closed and the collection will now be sent on tour.

### Godfrey Adds Two Distributors

Godfrey Roller Company, Philadelphia, Pennsylvania, announces two additional distributors for Aquatex, their seamless, durable cover for dampening rollers. They are National Roller Company, New York, and Gustavo E. Mustelier, Havana, Cuba.



## The Douthitt Diaphragm Control

*The original scientific method  
of halftone negative making*

Correctly balances all optical factors in negative making, thereby assuring correct and uniform negatives.

The negative is the basis of pictorial lithography, and with the Douthitt Diaphragm Control attached to the lens and camera, the operator can produce uniform negatives with accuracy at all times, eliminating all guess work.

The diaphragm control has now been in use for fifteen years in all branches of the graphic arts industry where the halftone negative is used.

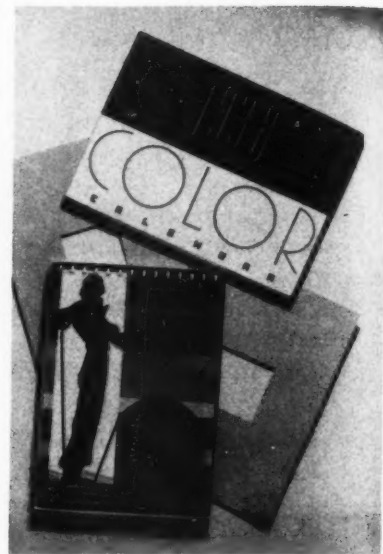
*Will be installed on approval for  
any reliable company.*

WRITE US FOR PRICE AND FULL PARTICULARS

### THE DOUTHITT CORPORATION

650 West Baltimore Avenue, Detroit, Michigan

## IPI Calendar Is Monthly Chameleon of Color



A new color calendar featuring appropriate color combinations for each month, with suggestions as to how to use them most effectively, has been distributed by the International Printing Ink Corporation, New York.

Combining the general utility of a calendar with the functions of a guide to color harmonies, the IPI calendar pages carry enough different color steppings to make 2500 two-color combinations or 60,000 three-color selections. Two gray masques are included to simplify color matching and selection.

The calendar contains examples of many types of letterpress and offset printing, including work done with gold and silver metallic inks, process printing, Ben Day, and overprint varnish. An explanation after each color sheet tells how it was printed and indicates how special effects were produced.

## Social Security Returns to be Filed Quarterly in 1938

Photo-lithographers should keep in mind the new amendment to the regulations relating to the Social Security Act, which provides for the filing of quarterly tax and information returns beginning with the 1938 calendar year on a form entitled SS-1a, now in course of preparation. This amendment eliminates the monthly tax return (SS-1) applicable during the calendar year 1937.

Therefore, the first tax return to be filed by all employers subject to the Act not later than April 30, 1938, will cover the period from January 1 to March 31, 1938.

This amendment will likewise eliminate filing of information returns on Forms SS-2 and SS-2a, as the new form is intended to encompass all of the information formerly required on SS-1, SS-2, and SS-2a.

Every key man in your office and plant will find something of value in every issue of THE PHOTO-LITHOGRAPHER.

THE PHOTO-LITHOGRAPHER



## Schlesinger Process Revolutionary, Claims Inventor

**I**NVENTION is changing the whole outlook for printing processes and offset lithography. The new Schlesinger superhard enamel process, for instance, makes a distinct contribution of great importance, according to the following description furnished by the inventor, Alfred Schlesinger, 2 Whitehall Court, London, S. W. 1.

The preparation of plates by this process is expedited to such a degree that a complete plate can be made in twenty minutes after the exposure is started. The procedure is so simple, definite, and follows such a regular course that it can be well described as foolproof.

The Schlesinger Process requires no apparatus of any kind except the usual whirler, lamps and vacuum frame.

But beyond this is the simplicity and safety with which the most difficult problem, that of reversing the developed deep etched image in an everlasting printed image, is obtained and the removing of the exposed stencil.

This enamel image adheres so strongly to the metal as to resist any amount of acid and by an amazingly strong water-repelling action takes ink so easily that in most cases the plate can be made without any deep etching. The half-tone image shows absolutely the original. The whole process from the moment the plate is exposed to light takes only twenty minutes and the plate is ready for the printing press.

With the same two solutions with which this reversal is made, the production of transfer plates can be 50% shortened, no rolling up with ink is used and therefore it retains the original sharpness. Too heavy printing parts can easily be etched up to what is known as fine etching in letterpress block making by the acid resistance of the image in this revolutionary new lithographic process.

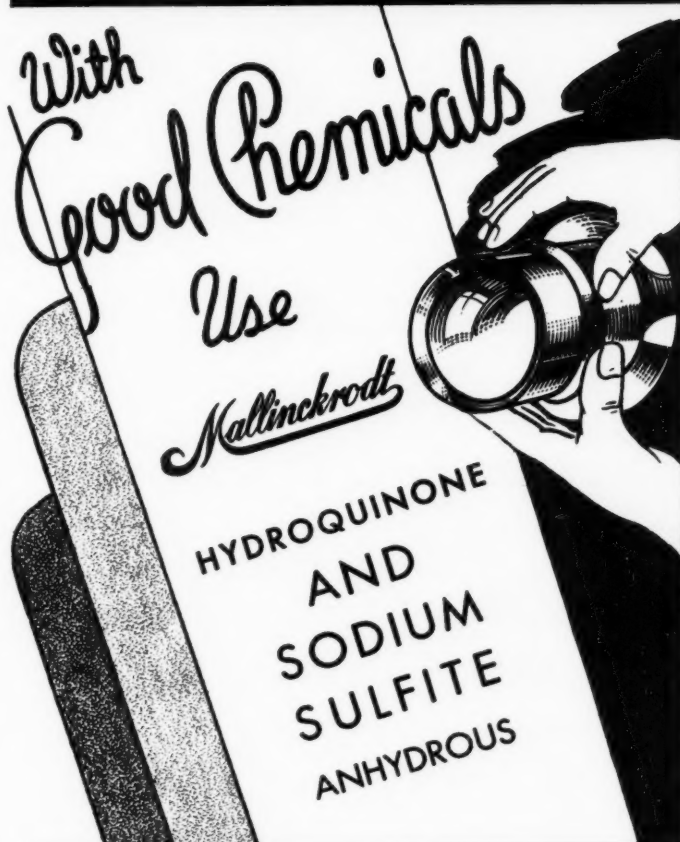
The albumen plate treated with the same solution under gum, prints hundreds of thousands without any difficulty because the hardened albumen dot is absolutely protected against the effects of water and lithographic etching is possible which is stronger than hitherto known. The ease with which this coating can spread over the plate and the ease and quickness with which it can be washed off with water from the non-printing parts allows this treatment of plates on the printing machine itself.

Therefore, the printer can start every morning with a really new printing surface. Strong lithographic etching is possible on the machine itself, also the opening of over-heavy printing parts. A much rougher grain can be used because the super-hard enamel fills up the valleys in the grain and offers to the inking rollers an absolutely even surface of the printing image.

The foregoing is compiled from witnessing a trial of the Schlesinger process at one of the largest London, England, lithographic works.

JANUARY 1938

## When Photographing **BACK UP YOUR LENS**



Camera Men who have become familiar with the complete line of Mallinckrodt Photo Chemicals, realize that the much-advertised phrases "Photo-Purified", "Physically and Chemically Perfected", are more than mere words. The words represent seventy years of photo-chemical improvement... a long time, when you come to think of it... and a lot of improvement. Specify MALLINCKRODT when you order.

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Deep-Etch Plates  
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# ECLIPSE DEEP-SET BLACK

● Make this combination a habit. Then the lithographed sheets will *invariably* show enough contrast, sharpness, and brilliancy to please your most particular customers.

● Because Eclipse is made especially for use with deep-etch plates, it results in dense, opaque solids, clean highlights, and faithful reproduction of the smallest details.

In addition to Eclipse, we have inks, both black and colors, to meet all of your requirements.

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538 South Clark Street, Chicago, Ill.

## EQUIPMENT AND MATERIALS

### • REVIEW •

*With this issue THE PHOTO-LITHOGRAPHER is starting a new feature, consisting of descriptions of equipment and materials of outstanding merit and with extraordinary qualities of usefulness in the photo-lithographic field.*

*Contributions are welcomed from manufacturers who have established unquestionable proof of the unusual contribution of their product to improving efficient operation of photo-lithographic plants, preferably through actual use in a number of plants.*

*This feature will be conducted mainly for the benefit of the newcomers in the industry. It is assumed that all others are more or less familiar with the equipment and materials good enough to rate description in this section of THE PHOTO-LITHOGRAPHER.*

*Publication of any contribution should not be construed as an endorsement by THE PHOTO-LITHOGRAPHER of any of the statements made in it. This magazine will, however, try to establish, before publication of any contribution, the fact that the equipment or material it describes meets the general specification of "outstanding merit," proved by extensive actual use.*

#### DOUTHITT DIAPHRAGM CONTROL SYSTEM

THE Douthitt Diaphragm Control is a precision instrument attached to the lens and camera to unite in perfect balance all the optical factors that enter into the production of half-tone negatives. It shows at a glance the correct size stops to use in the lens, the correct time of exposure and the correct screen separation for all screens.

By using this device the operator can standardize all negatives and will consequently standardize the quality and quantity of the work that follows. The making of high grade and uniform negatives is the first and most important step toward the standardization of the lithographing process.

With the Control installed in any institution it will be found possible to standardize the subsequent handling in such a manner that complete standardization will eventually follow.

Every time the camera is moved or the screen changed, all the factors of exposure are also changed. It will readily be apparent that selecting the proper stops to use in the lens and the proper exposure time for every exposure, enlargement and reduction, is a complex operation and a device which will automatically solve these problems is a valuable addition to every half-tone camera. With this device it becomes a very simple operation to expose plates with a certainty that the cameras and lens factors are scientifically correct.

THE PHOTO-LITHOGRAPHER

Without such a diaphragm control the photographer must keep constantly in his mind an immense amount of practical knowledge and experience which has to be drawn upon every time a negative is made and the miscalculation of a single factor will result in a spoiled or inferior negative. All camera operators will realize the meaning and value of a device which systematizes and coordinates optical laws and scientific principles in making half-tone negatives.

The camera factors relative to exposing half-tone negatives are: camera extension, screen opening, screen separation, diaphragm opening for the different stops that must be used in the lens and the time of exposure for each size stop.

Of course all of these can be calculated but it is very apparent that if the operator had to correctly calculate all these factors, more time would be used in calculations than in making negatives.

Because the camera extension is not constant, but is always changing according to the size of the copy and the amount of reduction or enlargement, it would be necessary to calculate the camera problem for every possible camera extension and for every different ruling of the half-tone screens.

The diaphragm control automatically calculates these factors and as soon as the operator becomes familiar with its use all guesswork on his part is eliminated, thereby saving many make-overs and improving the quality of the negative.

All printing processes, where the half-tone negative is used, can improve the quality of their finished product by using the diaphragm control.

Photo-offset lithographers, and all kindred processes of the graphic arts industry are at all times endeavoring to improve their work and it is of the utmost importance in these processes that a high grade and uniform negative be obtained as the printing plate can be no better than the negative.

The Douthitt Diaphragm Control can be installed on any camera and lens now manufactured for process work.

Practically all engraving plants and many lithographing plants throughout the country are now users of this device. There are also many installations in Latin America and foreign countries.

### Only Paper Covers, Rules Post Office

"The preparation of covers with a paper base to which a sheet of cellophane has been attached, for the copies of publications entered as second-class matter, is not permissible under the law," says a recent ruling of the Post Office Department. It says further that "such publications must be formed of printed paper sheets, cellophane not being paper within the generally understood meaning of that term as used in the law."

JANUARY 1938



## COLLODIONS

*for*

**Better Wet Plates**

## HYDROQUINONE

*for*

**Better Dry Plates**



## EGG ALBUMEN

*for*

**Better Coating  
of All Plates**

**A full line of quality  
Photo-Lithographic Chemicals**



WRITE FOR SAMPLES

## PHILLIPS & JACOBS

**622 RACE STREET, PHILADELPHIA, PA.**

Over 70 years experience in  
supplying Quality Chemicals





## Sell More Paper

in this rich, receptive, rapidly growing market — the lithographic field — by advertising in

### *The Photo-Lithographer*

which reaches practically every lithographer in the United States and Canada once a month.

● Readers include not only the executives who choose and actually buy paper, but also those who influence such buying — for instance superintendents and foremen who have the job of working with paper.

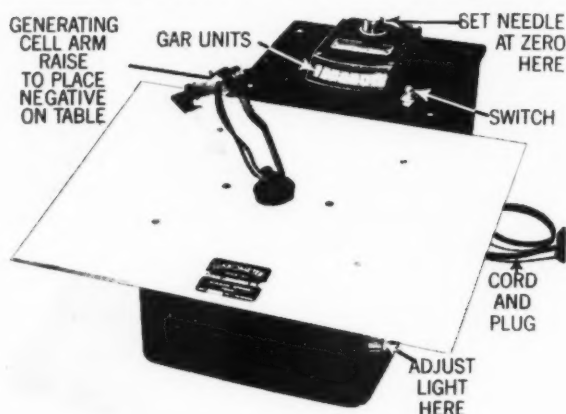
● In addition to your story in the regular advertising pages, you can have an insert of any kind of paper, printed by letterpress or photolithography, as you desire. Or you can arrange a swatch of several papers, or show an unusual fold or die-cut design — in fact, you can show almost anything that can be wire bound. This can be done only because *The Photo-Lithographer* is mailed under Section 574½, Postal Regulations.

● The *Photo-Lithographer* in this way can be not only a valuable addition to your regular advertising media, but also an important supplement, monthly, to your sample distribution.

For more sales investigate the pulling power of

## THE PHOTO-LITHOGRAPHER

## Density Meter for Color Negatives



WITH the rapid strides that have been made in color photography, especially in the making of natural color prints on paper, there has existed a decided need for a density meter to accurately determine the balance between three color separation negatives.

The Garometer, sold by George Murphy, Inc., 57 East Ninth St., New York, is an instrument that not only balances negatives but also gives a complete history of the negatives.

With this instrument the balancing of three color separation negatives can be accomplished in less than fifteen minutes, according to the manufacturers, by the simple process of measuring the densest and lightest portion of each negative, the result of which gives a Gar-Unit factor. With this factor and a simple process of multiplication, the balance of the three negatives is obtained.

Another important use of the Garometer in color photography is with one-shot cameras for outdoor "shots," which have been rather difficult to make because of the changing character of sunlight at different times.

When an important "shot" of this kind is to be made, a combination of exposures with three or four filters can be made. When these negatives are developed, the Garometer will, by relative readings, indicate the separation against a previously established standard.

Another use of this instrument is in the determining of developing time for balancing negatives—for instance, when two "shots" are made of a subject and, because of conditions surrounding the taking of the photograph, a question arises as to the proper developing time for the separation negatives.

Not only can this instrument be used in color work but, according to the manufacturers, it is also useful in black and white work, in which an accurate knowledge of exposure, development time, and other factors are needed for the maintenance of high standards.

THE PHOTO-LITHOGRAPHER

**General  
Electric  
Announces  
New  
Exposure  
Meter**



**D**ESIGNED for use over a wide range of illumination levels, a new exposure meter has been announced by the General Electric Company. Simple in operation and sturdy in construction, the new meter is a compact, precision instrument for use in taking either still or motion pictures under all sorts of conditions. The light-sensitive cell used is the same type which has proved its permanence in the General Electric light meter.

One of the outstanding features of the new instrument is the use of a hood to limit more effectively the angle of the light received to approximately that of a camera. The particular shape of the opening in the hood is advantageous because, when pointed at a normal scene, the full angular width of the camera is included in a horizontal direction, but in the vertical direction a much narrower angle is used. This lessens the error of indication caused by strong sky light. This hood, when not extended for taking readings, slips snugly over the instrument, protecting the face and light cell.

The hood, in addition to being very sharply directional, is provided with a hinged, slotted cover which when opened increases the sensitivity of the instrument by 10 to 1. In extremely low illumination, where incident light can be measured, the hood may be removed and another increase in sensitivity of approximately 10 to 1 obtained.

A direct-reading scale is provided giving *f* values and exposure readings for the most popular films. Values for films of other speeds can be obtained by using the calculator on the hood. This calculator, consisting of a fixed plate and only one moving plate, translates foot-candles into shutter speeds for any film and lens aperture.

Another feature of the instrument is its use as a light meter, with the hood removed. Thus illumination in the home or office can be readily checked.

The general form of the instrument makes it particularly valuable for printing and enlarging, as well as for actually taking the picture.

**JANUARY 1938**

*Ready to Run*

**ADENA**

**OFFSET**

**DUAL CONTROL**

**TUB SIZED  
LIES FLAT  
WILL NOT CURL**

Now... ADENA can be put on press right from case or skid. Think of the economy!

Why is it ready to run?  
Because of Dual Control



Save Money by  
Shipping via  
Miami Valley  
Shippers' Assn.

By Dual Control we refer to the fact that moisture content is automatically controlled while ADENA is being made on the paper machine. Additional control is afforded by means of a perfectly air-conditioned finishing room.

All through the entire process of sheeting, careful sorting and packing, this **COMPLETE CONTROL** paves the way for 100% satisfaction.

**PRICED FOR  
QUANTITY RUNS**



Makers of Quality Offset, Lithograph and Book Papers

**CHILLICOTHE  
PAPER COMPANY**

Executive Offices and Mills: CHILLICOTHE, O.

Eastern Office:  
New York, N. Y.  
41 Park Row

Sales Offices:

Pacific Coast Office:  
Los Angeles, Calif.  
1003 N. Main St.

**CHILLICOTHE—a buy-word for high grade paper**

# SINCLAIR & CARROLL INKS MAKE FOR GOOD RESULTS

Throughout the country in hundreds of pressrooms Sinclair & Carroll inks are being chosen for their all around dependability and good color strength. These inks are supervised in their formulation and manufacture by men whose first consideration is the well being of this business. The uniformity of these inks is safeguarded for you. The Sinclair & Carroll label on your ink container is an added guarantee of good printed and lithographed results. We will welcome the opportunities you afford us to serve you constructively on your requirements.

## SINCLAIR & CARROLL CO., Inc.

PRINTING

INKS

LITHO

591-3-5 ELEVENTH AVENUE - Tel. BRYant 9-3566

NEW YORK CITY

CHICAGO: 440 West Superior Street, Tel. Superior 3481

LOS ANGELES, CAL.: 417 E. Pico Street, Tel. Prospect 7296

NEW ORLEANS, LA.: 518 Natchez Street, Tel. Main 4491

SAN FRANCISCO, CAL.: 345 Battery Street, Tel. Garfield 5834

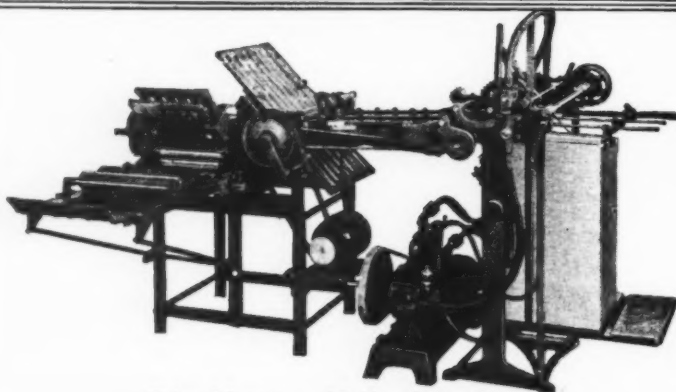
*Instruction • Survey • Plant Layout • Organization • Methods  
Solution of Problems from Camera to the Press*

EXPERT SERVICE ON A PER DIEM OR ANNUAL BASIS

DR. L. R. MELOY

1776 BROADWAY

NEW YORK, N. Y.



Priced Low . . . 30 Months to Pay

### THE SENSATION OF 1937 *The New* BAUM AUTOMATIC FOLDER

5 Folds in One Operation  
15,000 Operations an Hour

Accuracy Unexcelled — 60 Styles of Folds

**RUSSELL ERNEST BAUM**

615 Chestnut St., Philadelphia, Pa.



## Watch for These Stolen Lenses

THE following lenses have been reported as stolen from various plants throughout New York:

- 1 Goertz Apochromat Artar F-12.5 Focus 30" No. 399535 with adapter ring for larger prism.
- 1 Goertz Apochromat Artar F-11 Focus 19" No. 753818
- 1 Cooke Process Lens, Taylor, Taylor & Hobson, 16" (No record of number but taken with two foregoing lenses).
- 1 Cooke Process Lens, Series V Taylor, Taylor & Hobson—No. 26429
- 1 Cooke Process Lens, Taylor, Taylor & Hobson—No. 55241
- 1 Cooke Lens Series V. B. Taylor, Taylor & Hobson, 16" Focus—No. 229307.
- 1 Cooke Lens Series V. B. Taylor, Taylor & Hobson, 16" Focus—No. 139386.
- 1 Cooke Lens Series V. B. Taylor, Taylor & Hobson, 16" Focus—No. 172469.
- 1 Goertz Artar Color Lens—24" Focus—No. 756188
- 1 Goertz Artar Color Lens—19" Focus—No. 221463
- 1 Zeiss-Tessar Lens No. 980106
- 1 Zeiss-Tessar Lens No. 1415678
- 1 Bausch & Lomb, 18" focus—No. 3158581
- 1 Color Lens Goertz—17" with prism
- 1 Color Lens Goertz—24" with Bausch & Lomb prism
- 1 B & W. Lens Goertz No. 301543
- 1 B & W. Lens Zeiss No. 980094
- 1 B & W. Lens Cook No. 49020
- 1 B & W. Lens Cook (Number not recorded)
- 1 Goertz Artar 24" Lens, No. 9F11 No. 754837

Some of the thefts are of recent occurrence, others occurred within the last six months. The entire list is published because frequently stolen lenses are not offered for sale until several months after they have been stolen.

The list records the theft within the last six months of more lenses than were stolen in the previous six years, and this suggests that the theft of lenses might be the basis of an organized racket, according to W. Arthur Cole, managing director of the Photo-Engravers Board of Trade of New York.

Any information that will help to locate stolen lenses, and to apprehend the thieves, should be reported promptly to the Photo-Engravers Board of Trade, 60 East 42d Street, New York. The telephone is MUrray Hill 2-5375.

In addition, any knowledge of the whereabouts of one Goertz Artar 24" Lens, No. 9F11—754837, stolen November 23 from the premises of Photo Reproduction Corporation, 100 Sixth Avenue, New York, should be reported to that Corporation.

## A Mailing Tip for Your Customers

Envelopes of No. 10 size are usually sorted first by postal clerks on the theory that such envelopes contain business mail and therefore should be given more expeditious handling over all other mail. This suggests to mail users the advisability of using No. 10 envelopes to insure prompt handling.

JANUARY 1938

# 4

**CENTRALLY LOCATED  
DISTRIBUTING POINTS  
NEW YORK  
CLEVELAND  
CHICAGO  
CAMBRIDGE  
(MASS.)**

**COMPLETE STOCKS OF**

# HUNT'S

**PHOTOGRAPHIC  
AND  
PLATE MAKING  
CHEMICALS**

**SEE OUR LISTINGS IN THE  
WHERE-TO-BUY-IT SECTION OF THIS ISSUE**

## PHILIP A. HUNT COMPANY

**2432 LAKESIDE AVE.  
CLEVELAND, OHIO**

EST.  
1909

**1076 W. DIVISION ST.  
CHICAGO, ILLINOIS**

**253-261 RUSSELL ST.  
BROOKLYN, N. Y.**

**111 BINNEY STREET  
CAMBRIDGE, MASS.**

# SAM'L BINGHAM'S SON MFG. CO.

MANUFACTURERS OF

## LITHO-OFFSET ROLLERS

MADE AS ORDERED OF

VULCANIZED OIL or LITHO-PRINT

ORDER THROUGH THE FACTORIES BELOW:

ATLANTA  
CHICAGO  
CLEVELAND  
NASHVILLE

DES MOINES  
DETROIT  
DALLAS  
HOUSTON

INDIANAPOLIS  
KALAMAZOO  
KANSAS CITY  
ST. LOUIS

MINNEAPOLIS  
PITTSBURGH  
SPRINGFIELD, O.  
OKLAHOMA CITY

Pacific Coast Representatives:

CALIFORNIA INK COMPANY, INC.

SAN FRANCISCO, LOS ANGELES, PORTLAND, SEATTLE, SALT LAKE CITY

Incorporated 1916

## THE PIONEER PLATE GRAINERS IN AMERICA

Reliability Backed by a Desire to Please

### IMPORTANT ANNOUNCEMENT

### TO MULTILITH OWNERS

We are pleased to announce to the trade that a new Department has been added to our already large graining plant to take care of your requirements in the Regraining of your MULTILITH PLATES.

===== ALL OUR PLATES ARE MARBLE GRAINED =====  
**WHEN WE SAY MARBLE GRAINED WE MEAN JUST THAT**

They may cost a little more BUT what a DIFFERENCE. A trial order will convince you of their merits.

Address your inquiries to

MULTILITH DEPT., 45 ROSE ST., NEW YORK CITY

IF PLATE RELIABILITY IS WHAT YOU ARE LOOKING FOR - THAT'S US.

PHONES  
BEEKMAN  
3-4531-4542

**Reliable Lithographic Plate Co., Inc.**

17-27 Vanderwater St. & 45 Rose St., New York City

## Outlook for 1938

(Continued from page 13)

Sharing the opinion expressed by many business leaders throughout the nation, we look for a substantial upturn in general business early in 1938. The indication of apparently favorable consideration to be given by the Administration and Congress looking toward some modification in the near future of the Undistributed Profits and Capital Gains Tax Laws will, we think, go a long way to help this expected stimulation of business, and we believe the printing industry as a whole will share therefrom to a large extent, as well as participate in the benefits of research and development which have constantly been carried on during the last few years.

J. M. Masterson, Vice-Pres. and Gen. Sales Mgr.  
R. Hoe & Co., Inc.

There is little doubt that the present restrictions on physical properties expansion will result in increased expenditures in all kinds of advertising during 1938. The ever widening application of offset printing together with the sweeping tendency towards pictorial presentation of advertising matter presages a busy year for the lithographers. Manufacturers are better prepared than ever before to assist in attaining quality results at minimum costs. At the present time the lithographer's needs have been anticipated before his demands with new, fast presses, greatly improved papers, inks, and scientific roller equipment. An optimistic outlook and a little old time courage are the chief requisites for making 1938 a huge success.

E. B. Davis, Vice President  
Ideal Roller & Mfg. Co.

Do it better by "Offset" is no mere phrase.

From every indication, it looks like 1938 is going to be another good offset year.

The advancement and development in the offset printing industry will afford many profitable opportunities for the progressive organization to better serve the purchasers of direct advertising literature.

Offset equipment manufacturers are alert to the progress that is being made and modern improved plate making equipment with features for greater plant efficiency forms a real profit factor in photo-lithographic reproduction work.

Let us all help to do it better by "Offset."

C. E. Valette, President  
Litho Equipment & Supply Co.

(Continued on pages 70-71)

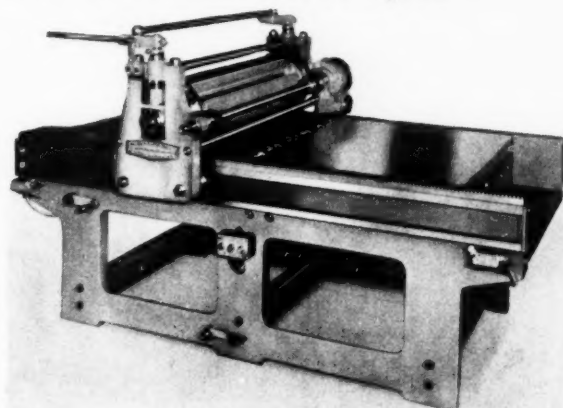
JANUARY 1938

## "Not a Chinaman's Chance"

that you can turn out a good job from poor proofs. You can sometimes doctor up faulty type composition, inks, and things like that but—as surely as next Fall will bring little apples—a poor proof means a poor job. And that's poor business.

## Invest in the best — a Wagner proof-press

Then every proof can be a perfect proof —and every job will be off to a good start. For instance, here's a press —



Precision built throughout. Base of extra sturdy construction and completely balanced. Motor arrangement on side is new improved type that eliminates all vibration. Free on top so that impression on cylinder is always visible to operator. Printing bed, being adjustable, will take up to four inches in thickness. Has dependable clamping device for plates. Stationary bed has special gripper arrangement which positively holds sheet. Also equipped with latest streamlined type front and side gauges.

*Write for particulars*

## CHARLES WAGNER LITHO MACHINERY CO.

Division of NATIONAL-STANDARD CO., Niles, Mich.

51-55 PARK AVENUE

HOBOKEN, N. J.



## Outlook for 1938

(Continued from page 14)

The most encouraging factor for the development of sound prosperity in 1938 is the sincere effort that business and government are making to cooperate with each other. With a continuation of this cooperation, we need have no fears as to the future prosperity of all of our people.

The development of better trade relations with other countries is also an important factor in improving the prosperity of our people, because everyone is affected, directly or indirectly, by our export and import business.

**From the year-end statement by Thomas J. Watson, Pres. International Chamber of Commerce, and Pres. International Business Machines Corporation**

We are vitally interested in the progress made by the photo-lithographic industry. We believe the past few years have seen photo-lithography make an industry out of a trade. In such a transition period there must inevitably be some confusion. The end of 1938 should see more cooperation between individual concerns in the industry.

It is far more profitable for everyone when competitors within the industry are friendly, fair and, within reason, cooperative.

**K. W. Martin, Manager, Litho. Division  
Harold M. Pitman Co.**

Because of unsettled conditions, both national and international, a prediction for 1938 is beyond human capacity. Nevertheless, if the graphic arts industry would shake off the fear psychology that has gripped most industries and take steps to offset the rising costs of doing business, it could expect reasonable prosperity and at the same time have the satisfaction of knowing that it has not contributed to the present business recession.

**Gordon P. Kelley, Advertising Manager  
Miehle Printing Press & Mfg. Co.**

It is our opinion that the lithographic industry is in a position to make some definite contribution in overcoming the present business recession. The present tendency to under-buy has a definite effect on production costs and we believe that those who are sincerely interested in a recovery and a continuance of business at normal levels should do everything possible to place orders for equipment and supplies immediately.

We are also of the opinion that lithographers in general will do much to elevate and increase the use of lithography by manifesting a deep and active interest in new developments.

We take this opportunity to compliment you on your efforts in bringing before the whole industry new ideas, new equipment and supplies and by contributing generally to more advanced ideas for the art.

**J. C. Dunn, General Sales Manager  
Vulcan Proofing Co.**

You ask how 1938 is expected to compare with 1937. On December 18, 1936 we wrote "We have just completed making our factory one third larger and installing a tremendous amount of new automatic machine tool equipment and we are looking forward in the New Year to a large amount of press business."

This expansion program enabled us to double our business in 1937 and with the present activity of still installing new equipment to increase production, we look forward to another substantial increase in business during 1938 providing we do not encounter political interference or economic troubles which are beyond anyone's control.

One of the fixed policies we have had for many years is to get one quarter cash as a down payment and the balance covered by twenty-four equal monthly notes bearing interest at 6%. The printers and lithographers appreciate a fixed stand by a manufacturer along these lines. The idea of offering any terms and accepting notes over four and five years is nothing less than press manufacturers' suicide and is an injustice to the lithographers.

**J. B. Webendorfer, Vice President  
Webendorfer-Wills Co., Inc.**

Progressive bank and commercial stationers view business prospects for the coming year without trepidation. The past two years have been prosperous ones and as a result these houses enter 1938 with well protected balance sheet positions, with their program for continued improvement in equipment and methods vigorously advanced, and with sound industrial relations.

Technical observers are optimistic that changes in the credit and monetary policies of the government can be expected, resulting in orderly credit expansion, increased business activity and the restoration of sound earnings bases for industry and the banks. Therefore no substantial slump in the lithographing of bank and commercial stationery is looked for, but if it should occur progressive houses in the industry are better prepared to cope with it than before.

The Institute of Bank Stationers will continue its advertising campaign in banking journals and by direct mail, stressing the place of good stationery in constructive customer relations.

**Malcolm McComb, Managing Director  
The Institute of Bank Stationers**

Business obtained by our company during the past calendar year has shown an improvement over 1936.

In any year of receding general business it is always possible for the aggressive organization to locate and secure orders. It is our feeling that while we have been in a period of recession we can confidently look ahead to the coming year as holding opportunities for the alert members of the graphic arts industry. New and better ways to do the old job are constantly being found and a definite

**THE PHOTO-LITHOGRAPHER**

attack on obsolete equipment will bring with it satisfactory returns.

Many members of the graphic arts industry are taking these months not only to make a harder drive for business, but to get themselves in shape with better tools to do a better and more profitable job as the order volume increases.

Thomas R. Jones, President  
American Type Founders, Incorporated

### Association Queries for the New Year

**M**EMBERS of the N. A. P. L. and other associations in the photo-lithographic industry might ponder awhile—before the spirit of the New Year is too far behind them—over this New Year Soliloquy, sent by Label Manufacturers National Association to its members:

*"These random thoughts will explore my value to the Association and its value to me."*

Am I a good Association member?

If every member *boosted* as I do, what would the Association's reputation be?

If every member *greeted* the members as I do, what would the Association's fellowship rating be?

If every member *attended meetings* as regularly as I do, what would the average attendance be?

If every member *participated* in Association projects as I do, what would the service of the Association be?

If every member *tried* to get new members as I do, what would the Association's membership be?

If every member *cooperated* as I do, what would the net profit be?

### Starts Advising Service

C. W. Latham, who resigned recently as vice-president and factory manager of Latham Litho & Printing Co., Long Island City, N. Y., after nineteen years of practical experience in that plant, is now offering his services as a consultant on technical problems of a mechanical nature to photo-lithographers throughout the country.

Mr. Latham, who is now associated with Smart Platen Process Company, Brooklyn, is well-equipped as a consultant on lithographic mechanical problems, such as those connected with paper, presses, air conditioning, graining, inks, and electrical equipment.

After a thorough schooling in mechanical engineering, followed by service in the United States navy during the Great War as a marine engineer, Mr. Latham entered the Latham plant, of which his father, LeRoy Latham, is head. There, in addition to regular shop experience, Mr. Latham became familiar with the problems of other lithographers when he assisted his father in the affairs of the Research Committee of the Lithographic Technical Foundation, of which committee Mr. Latham, Sr., is chairman.

# ZEISS



## Optical Instruments For Process Work

Lenses, Stops, Prisms, Mirrors, Magnifiers, Color  
Filters, Revolving Collars, Focusing Microscopes

*Write for Information*

CARL ZEISS, INC., 485 FIFTH AVE., NEW YORK  
728 So. Hill Street, Los Angeles

For BETTER  
Reproduction

**LEVY CAMERAS**

Standard and Dark Room Types  
Made of Wood or Metal

HALF TONE SCREENS

VACUUM  
PRINTING FRAMES

LENSES - LAMPS

Manufactured by  
**REPRO-ART MACHINERY CO.**  
WAYNE AVENUE & BERKELEY STREET  
PHILADELPHIA, PENNSYLVANIA

# "IDEAL" VACUUM FRAMES FOR PERFECT PRINTING

This type IDEAL Frame can be used both ways — in vertical position with floor lamp, or in horizontal position with overhead lamp



IDEAL standard types are fully described in our illustrated catalogue, a copy of which will be forwarded upon request.

**SWEIGARD IDEAL CO.**  
6122 - 6124 No. 21st ST. PHILADELPHIA, PA.

## Let Me Be Your Advertising Man

**ADVERTISING AND EDITORIAL NEEDS** for your own organization and your customers . . . in the way of publication and direct advertising, house magazines, sales letters . . . would be handled 1, 2, 3 — just like that, and so expertly that you could bill them very profitably, if entrusted to me.

You would have the benefit of my many years in advertising and editorial work. I could handle

**DEVELOPMENT OF IDEAS**  
**COPY WRITING, MAKING OF ROUGHS,**  
**SUPERVISION OF TYPOGRAPHY**

All your advertising service under one competent direction and one responsibility! And you would pay me only for the work actually done for you.

Clients in the New York Metropolitan area could also have the benefit of my personal contacts with their customers in connection with advertising needs.

**BOX D42, The Photo-Lithographer**

## 13 Marketing Errors

Sales executives, in establishing and maintaining marketing policies, "fall down" most frequently in the following ways, according to A. C. Nielsen, president of A. C. Nielsen Co., Chicago:

- 1—Over-estimation of their percentage of a market.
- 2—Over-estimation of their percentage of prospects.
- 3—Over-estimation of the knowledge about their products.
- 4—Exaggerated idea of price resistance.
- 5—Under-estimation of the value of competitive sales policies.
- 6—Exaggerated conception of their standing with the trade.
- 7—Failure to gauge correctly the value of advertising appeals.
- 8—Over-estimation of the success of dealer loading operations.
- 9—Over-estimation of the success of a new product or package-size.
- 10—Unsound distribution of sales and advertising efforts.
- 11—Advertising over the heads of lower income consuming classes.
- 12—Failure to change a product fast enough when the demand changes.
- 13—Failure to test a proposed campaign on a small scale.

Sales executives in photo-lithographic companies might find food for thought in this list.

## New Ink Colors Announced

Two new colors of printing inks, Lithosol Fast Yellow, HL Powder and Lithosol Scarlet 2 YL, have been announced by the Dyestuffs Division, E. I. du Pont de Nemours & Co.

The new fast yellow is described by the Company as a lake yielding bright medium shades of yellow requiring no precipitating agent when mixed with or thrown on bases and slightly greener and brighter in shade, somewhat darker in mass-tone, than Lithosol Fast Yellow HN powder.

The new Lithosol scarlet, the company claims, has a deep mass-tone and yellow tint and closely resembles Scarlet 2R for lakes in shade. The outstanding feature of Scarlet 2YL, is said to be its resistance to light, freedom from effects by acids, alkalis or baking, and non-bleeding in oils, acids and alkalis.

**THE PHOTO-LITHOGRAPHER**



## Making Your Peace With Uncle Sam

(Continued from page 17)

they amount to much. Keep in mind that executive salaries and bonuses are deductible only when they represent compensation for actual services—reasonable amounts paid in connection with the carrying on of the business and such as would be paid ordinarily for like services by like enterprises under like circumstances. In fixing executive salaries or bonuses it would be well to take into consideration such factors, in addition to the officers' duties of management, as: 1) Sales controlled by the officers; 2) If an officer is acting as plant superintendent, the compensation that would be paid to someone else for this service.

The amount of stock in the corporation that is held by the officers should not form the basis for executive salaries. If the president of a corporation owning 50 per cent of the stock were to be allotted a salary of \$10,000, and the secretary and treasurer, each owning 25 per cent of the stock, were to be allotted salaries of \$5,000 each, the Government might question the deductions unless it could be proved that the salaries were fair compensation for actual services.

### BAD DEBTS

Bad debts to be deductible must be bona fide bad debts incurred by the business. If you have a bad debt as a result of a private transaction, you can't deduct it from the taxable income of your business. Further, the bad debt must not only have been determined by the taxpayer to be worthless within the taxable year for which deduction is claimed, but it also must have been actually charged off within the year and so shown on your books.

To satisfy the Government you must prove that a serious effort was made to determine that it actually is a bad debt. It is not sufficient to claim a bad debt deduction just because you *think* you will never collect a sum owing to you.

### SELLING EXPENSES

Reasonable selling expenses incurred in the conduct of the business are deductible. But you had better not guess at these expenses. It is advisable to submit each week or month vouchers of selling expenditures, such as carfare, entertainment, etc., so that your claims can be substantiated if questioned.

### EXCESS PROFITS TAX

If your net income should exceed 10 per cent of the adjusted declared value of your capital stock (as set forth in your capital stock report of August 31, 1937), you must pay an excess profits tax. On your excess profits up to 5 per cent of the adjusted declared value of your capital stock, the rate of the tax is 6 per cent. On excess profits over 5 per cent of the declared value of your capital stock, you pay at the rate of 12 per cent.

## "MILES-MADE"

*Means something in Lithography*

### MILES NEGATIVE and DOT REDUCING TABLE

This table is used for reducing the dot in color negatives, and reducing and clearing black and white negatives. The operator's hands are free to work on the negative, and the water is completely controlled by foot pedal. Standard size: 26 x 30  
Special sizes to order



*You will save money in equipment  
You will save money in production*

By buying from

**MILES MACHINERY CO.**

Telephone: ALgonquin 4-2466

18 East 16th Street, New York

**PLATE MAKING EQUIPMENT SPECIALISTS**

## MACHINE PRESS PLATES *for the trade*

(WE OPERATE  
NO PRESSES)

BLACK  
WHITE  
NEGATIVES  
HALF TONE  
LINE  
WET PLATE  
DRY PLATE  
FILM

PHOTO LAC  
NEGATIVES

PHOTO LAC  
POSITIVES

GRAINED  
GLASS  
POSITIVES

DOT ETCH  
POSITIVES

CAMERA  
POSITIVES

CONTACT  
POSITIVES

COLOR  
OFFSET  
PLATES  
NEW ETCHING PROCESS



PHOTO  
COMPOSED  
NEGATIVES

BEN DAY  
TINTS

STRIPPING  
ORIGINALS  
FOR  
TRANSFERRING

MACHINE  
DEEP  
ETCH  
PRESS  
PLATES

MACHINE  
ALBUMEN  
PRESS  
PLATES

BLOW UPS

### MACHINE MULTIPLES

GLASS 2 OR 200 UP

ZINC 2 OR 1000 UP

STAMPS COUPONS

LABELS BUTTONS

PLAYING CARDS, ETC.

COLOR

BLACK WHITE

CHICAGO LITHO PLATE GRAINING CO.  
► PHOTO LITHO DIVISION ◄  
216 NORTH CLINTON ST., CHICAGO

# "WHERE TO BUY IT"

This Handy Reference Page is a regular monthly feature of THE PHOTO-LITHOGRAPHER  
It is an accurate guide to reliable firms

Listings are carried on this page at the rate of One Dollar Per Line per Month or Ten Dollars a Year Payable in Advance

## ACCOUNTANTS

Kromberg & Associates, C. P. A.'s, J., 461 Eighth Ave., New York, N. Y.  
Levess, Herbert H., C. P. A., 360 W. 23rd St., New York, N. Y.  
Reinish, Samuel S., C. P. A., 2 Lafayette St., New York, N. Y.

## ACIDS

California Ink Co., Inc., 545 Sansome St., San Francisco, Calif.  
Mallinkrodt Chemical Works, 3600 N. 2nd St., St. Louis, Mo.  
National Offset Supply Co., St. Louis, Mo.,  
Pitman, Harold M., Co., 150 Bay St., Jersey City, N. J., and 51st Ave. and 33rd St., Chicago, Ill.

## ADDRESSING AND MAILING SERVICES

Ardlee Service, Inc., 28 W. 23 St., New York, N. Y.  
Gray, James Letter Shop, 215 E. 45th St., New York, N. Y.

## AIR CONDITIONING EQUIPMENT

Offen, B. & Co., 608 S. Dearborn St., Chicago, Ill.

## ALUMINUM PLATES

(See Plates)

## ALBUMEN

California Ink Co., Inc., 545 Sansome St., San Francisco, Calif.  
Holland, Thor, 7048 Jones Ave., N. W., Seattle, Wash.  
Hunt, Philip A., Company, 253 Russell St., Brooklyn, N. Y.—2432 Lakeside Ave., Cleveland, Ohio—1076 W. Division St., Chicago, Ill.  
Mallinkrodt Chemical Works, 3600 N. 2nd St., St. Louis, Mo.  
National Offset Supply Co., St. Louis, Mo.  
Norman Willets Co., 318 W. Washington St., Chicago, Ill.  
Pitman, Harold M., Co., 150 Bay St., Jersey City, N. J., and 51st Ave. and 33rd St., Chicago, Ill.  
Senefelder Company, Inc., The, 32-34 Greene St., New York, N. Y.

## ALIGNING PAPER

(See Vogeltypes Paper)

## AMMONIUM DICHROMATE

Mallinkrodt Chemical Works, 3600 N. 2nd St., St. Louis, Mo.

## ARC LAMPS

(See Lamps—Arc)

## ASPHALTUM

Hilo Varnish Corporation, 42-60 Stewart Ave., Brooklyn, N. Y.  
International Printing Ink Corporation, 75 Varick St., New York, N. Y.  
National Offset Supply Co., St. Louis, Mo.  
Pitman, Harold M., Co., 150 Bay St., Jersey City, N. J., and 51st Ave. and 33rd St., Chicago, Ill.  
Senefelder Company, Inc., The, 32-34 Greene St., New York, N. Y.

## ARTISTS

Hugo L. Sachs, 7 West 20th St., New York, N. Y.

## ARTISTS' SQUARES

Zoltan, John M., 833 Lyman Ave., Oak Park, Ill.

## ARTISTS' SUPPLIES

Peerless Blue Print Co., The, 347 Fifth Ave., New York, N. Y.

## BELLOWS

United Camera Co., Inc., 1515 Belmont Ave., Chicago, Ill.

## BENDAY AND SHADING MEDIUMS

(See Shading Mediums)

## BINDINGS

Plastic—Brewer—Cantelmo Co., Inc., 118 E. 27th St., New York, N. Y.  
Spiral—Spiral Binding Company, 148 Lafayette St., New York, N. Y.  
Wire—O—Trussel Mfg. Co., Poughkeepsie, N. Y.  
(See list of licensees in display advertisement)

## BLANKETS

Bainbridge, Philip M. (Goodrich Rubber Blankets), 95 Madison Avenue, New York, N. Y.  
California Ink Co., Inc., 545 Sansome St., San Francisco, Calif.  
Ideal Roller & Mfg. Co., 2512 W. 24th St., Chicago, Ill.  
International Printing Ink Corporation, 75 Varick St., New York, N. Y.  
National Offset Supply Co., St. Louis, Mo.  
Rapid Roller Co., Federal at 26th, Chicago, Ill.  
Reed Roller & Supply Co., Inc., 415-417 Jackson St., San Francisco, Cal.  
Roberts & Porter, Inc., 100 Lafayette St., New York, N. Y., and 402 S. Market St., Chicago, Ill.

## Sackett & Wilhelms Publish Pictorial Directory of Creative Artists

**C**REATIVE ARTISTS 1938, an almost entirely pictorial presentation of more than 100 reproductions in black and white photo-lithography of subjects from the pens and brushes of ninety-eight artists, has been published by Sackett & Wilhelms Lithographing Corporation, 562 Fifth Avenue, New York, as a successor to a similar but smaller volume published last year.

To buyers of commercial art work, copies of the book are being distributed to the extent of a limited edition.

The illustrations show a wide variety not only of subjects but also of technique and handling. The reproductions are all in black-and-white but were made from originals in almost every medium, including oil paintings, pastels, water colors, wash, crayon, charcoal and line drawings, and photographs.

Reproductions of such fidelity, in black-and-white only, from a collection of subjects so widely varying in character, and including full color originals, offer an excellent exhibit of the practical possibilities of modern lithographic processes.

The volume has been published as a cooperative project of the contributing artists and studios and the Sackett & Wilhelms Corporation, who designed and lithographed the book.

The page size is  $8\frac{1}{2}$ " x 11" and the pages are lithographed on one side only, each page carrying only the artist's subject, or subjects, and the artist's name. The cover is illustrated in color, lithographed on flexible heavy cover stock, and the book is in looseleaf format with Wire-o binding.

### Thanks!—and a Suggestion from the Publisher and His Staff

**T**HE publisher and staff of THE PHOTO-LITHOGRAPHER take this means of thanking many friends who remembered them with greetings during the holidays.

Lithographers might "put on ice" for use next December the idea of making up combination runs of greetings of such a nature that their attractiveness would come from novelty of wording, rather than through the use of a number of colors or novelty papers. Greetings done in this way might provide a refreshing change from the more conventional kind. In addition, they would provide opportunity, if cleverly written, to do some good-will advertising that should be far more effective than that of the usual type.

THE PHOTO-LITHOGRAPHER extends to its subscribers and many other friends most sincere wishes for prosperity and happiness in the New Year.

JANUARY 1938

## Columbia Offset & Reproduction Corp.

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Sinclair & Valentine Co., 11 St. Clair Pl., New  
York, N. Y.  
Vulcan Proofing Co., 58th St. and First Ave.,  
Brooklyn, N. Y.

#### **BRONZERS**

Henschel Mfg. Co., Milwaukee, Wis.

#### **CAMERA CONTROLS**

Douthitt Corp., The, 650 W. Baltimore Ave.,  
Detroit, Mich.

#### **CAMERAS**

Agfa-Ansco Corp., Binghamton, N. Y.  
California Ink Co., Inc., The, 545 Sansome St.,  
San Francisco, Cal.  
Eastman Kodak Co., 343 State St., Rochester,  
N. Y.  
Lanston Monotype Machine Co., 24th at Locust,  
Philadelphia, Pa.  
Levy, Max & Co., Wayne & Berkley, Philadelphia,  
Pa.  
Litho Equipment & Supply Co., 215 W. Ohio St.,  
Chicago, Ill.  
Miles Machinery Co., 18 East 16th St., New York,  
N. Y.  
Norman-Willets Co., 318 W. Washington St., Chi-  
cago, Ill.  
Ostrander-Seymour Co., The, 1870 S. 54th Ave.,  
Cicero Station, Chicago, Ill.  
Pitman, Harold M., Co., 150 Bay St., Jersey City,  
N. J., and 51st Ave. and 33rd St., Chicago, Ill.  
Repro-Art Machinery Co., Wayne Ave. & Berkley  
St., Philadelphia, Pa.  
Robertson, R. R., 1 N. Canal St., Chicago, Ill.  
Sullebarger, E. T., Co., 116 John St., New York,  
N. Y., and 538 S. Clark St., Chicago, Ill.  
Wesol Mfg. Co., 468 Fourth Ave., New York,  
N. Y., and Scranton, Pa.  
Zeiss, Carl, Inc., 485 Fifth Ave., New York, N. Y.

#### **CARDBOARDS AND BRISTOLS**

Wheelwright Papers, Inc., 230 Park Ave., New York,  
N. Y.

#### **CARBON (ARC LAMP)**

Pease Co., C. F., The, 809 N. Franklin St., Chicago,  
Ill.

#### **CARBON PAPER RIBBONS**

Remington Rand, Buffalo, N. Y.

#### **CARBONS—Photographic**

Hunt, Philip A., Company, 253 Russell St., Brook-  
lyn, N. Y.—2432 Lakeside Ave., Cleveland,  
Ohio—1076 W. Division St., Chicago, Ill.  
Norman Willets Co., 318 W. Washington St.,  
Chicago, Ill.  
Sullebarger, E. T., Co., 116 John St., New York,  
N. Y., and 538 S. Clark St., Chicago, Ill.

#### **CHEMICALS**

Agfa-Ansco Corp., Binghamton, N. Y.  
California Ink Co., Inc., The, 545 Sansome St.,  
San Francisco, Calif.  
Eastman Kodak Company, Rochester, N. Y.  
Hunt, Philip A., Company, 253 Russell St., Brook-  
lyn, N. Y.—2432 Lakeside Ave., Cleveland,  
Ohio—1076 W. Division St., Chicago, Ill.  
La Motte Chemicals Products Co., 438 Light St.,  
Baltimore, Md.  
Mallinkrodt Chemical Works, 3600 N. Second St.,  
St. Louis, Mo.  
Merck & Co., Inc., Rahway, N. J.  
National Offset Supply Co., St. Louis, Mo.  
Norman-Willets Co., 318 W. Washington St., Chi-  
cago, Ill.  
Phillips & Jacobs, 622 Race St., Philadelphia, Pa.  
Pitman, Harold M., Co., 150 Bay St., Jersey City,  
N. J., and 51st Ave. and 33rd St., Chicago, Ill.  
Senefelder Company, Inc., The, 32-34 Greene St.,  
New York, N. Y.  
Siebold, Inc., J. H. & G. B., 47 Watts St., New  
York, N. Y.

#### **COLOR CONTROL AND MEASURING EQUIP- MENT**

Huebner Laboratories, 202 E. 44th St., New York,  
N. Y.

#### **COMPOSITION**

Monsen, Thormod and Son, Inc., 740 N. Franklin  
St., Chicago, Ill.

#### **COMPOSING MACHINES**

Coxhead Corp., Ralph C., 17 Park Place, New  
York, N. Y.

#### **CRAYONS-LITHO**

Korn, Inc., Wm., 120 Center St., New York, N. Y.  
Roberts & Porter, Inc., 100 Lafayette St., New  
York, N. Y., and 402 S. Market St., Chicago, Ill.  
Senefelder Company, Inc., The, 32-34 Greene St.,  
New York, N. Y.

#### **DAMPENING DEVICES**

Goodrich, The B. F. Co., 570 S. Main St., Akron,  
Ohio.  
International Press Cleaner & Mfg. Co., The,  
112 E. Hamilton Ave., Cleveland, Ohio.  
Wagner, Charles, Litho Machine Co., 51 Park Ave.,  
Hoboken, N. J.

#### **DEEP ETCH SUPPLIES**

Pitman, Harold M., Co., 150 Bay St., Jersey City,  
N. J., and 51st Ave. and 33rd St., Chicago, Ill.  
Robertson, R. R., 400 W. Madison St., Chicago, Ill.  
Schultz, H. J., 2230 N. Racine Ave., Chicago, Ill.  
Senefelder Company, Inc., The, 32-34 Greene St.,  
New York, N. Y.



### This Book Is a Gem

**I** NK GEMS is about the best way to describe the new line of gloss printing inks developed by the American Printing Ink Company, a division of General Printing Ink Corporation, hence the name Glostones to cover the line of 30 colors, rich in hue and lustre, that are shown in an unusually attractive specimen book, die-cut in the shape of a gem, just issued by American.

A list of suggestions on how to get the best results from these inks is included with the book, although in many shops that have been using these inks since 1934, they will not be necessary. In conjunction with this specimen book another has been prepared to show Glostone inks on clay coated stock for the carton field.

Photo-lithographers who operate letterpress departments can get copies by writing to the Chicago office of American Printing Ink Company.

### Litho Club Goes Gay in Big Way

**E** XCHANGE of gifts, and the display of Christmas stockings in attractive flesh tints were some of the features of the annual Christmas party held by the Litho Club, New York, December 15 in the Builders Club.

Announcement was made that the Club's annual Ladies' Night dinner and dance will be held at the Hotel McAlpin on January 15.

A report from the Board of Governors approving the application for active membership of John L. Dreyer (Gray Photo-Offset Corp.) was read, as were nominations for club official posts for the coming year.

The nominations are: William H. Hussey (Harford-Hussey-Woodward, Inc.) for president; John Schaefer (Oberly & Newell) for vice-president; John F. Maguire (Offset Engravers Associates, Inc.) for treasurer; William H. Carey (Sweeney Litho) for secretary.

The following were named to serve on the Club's Board of Governors: John W. Schepp (KLM Process); Joseph J. Dietl (American Colortype); Henry J. Ditzel (Zeese Wickman); Alfred F. Rossotti (J. C. Printing Co.); Rene F. Daubenbis (Offset Engraving); Adolph Weber (Kindred, Maclean & Co.); Edward D. Wilson (N. Y. Litho); and Joseph G. Zinn (Photo Litho Service).

The name of William Gegenheimer (Wm. Gegenheimer, Inc.) was proposed as an associate member.

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**DIE CUTTING MACHINE—Semi-Automatic**

Krause U. S. Corp., Karl, 55 Vandam Street, New York, N. Y.

**DRIER—Paste and Liquid**

Indiana Chemical & Mfg. Company, Indianapolis, New York City, Chicago.

**DRYING OVENS**

Zarkin Machine Co., Inc., 355 E. 27th St., New York, N. Y.

**DRYERS**

Carter, C. W. H., 100 Varick St., New York, N. Y.  
Hilo Varnish Corporation, 42-60 Stewart Ave., Brooklyn, N. Y.  
Sinclair & Valentine Co., 11 St. Clair Pl. New York, N. Y.

**DYNAMOS—MOTORS—PRESS DRIVES AND ELECTRICAL CONTROL EQUIPMENT**

American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J.  
Cline-Westinghouse, Chicago, Ill.  
General Electric Co., Schenectady, N. Y.  
Kimble Electric Co., W. 14th St. & S. Damen Ave., Chicago, Ill.  
Northwestern Electric Co., 408 S. Hoyne, Chicago, Ill.  
Robbins & Meyers, Inc., Springfield, Mo.

**ENVELOPES**

Dayton Envelope Co., Dayton, Ohio.

**ETCHES**

Senefelder Company, Inc., The, 32-34 Greene St., New York, N. Y.

**FADE-O-METER**

Atlas Electric Devices Co., 361 W. Superior St., Chicago, Ill.

**FILMS**

Agfa Ansco Corp., Binghamton, N. Y.  
California Ink Co., Inc., The, 545 Sansome St., San Francisco, Cal.  
Eastman Kodak Co., Rochester, N. Y.  
Gevaert Co. of America, Inc., The, 423 W. 55th St., New York, N. Y.  
Haloid Co., The, 6 Haloid St., Rochester, N. Y.  
Hammer Dry Plate Co., Ohio Ave. & Miami St., St. Louis, Mo.  
Norman-Willets Co., 318 W. Washington St., Chicago, Ill.  
Polygraphic Co. of America, 310 E. 45th St., New York, N. Y.

**FLANNEL**

Fuchs & Lang Mfg. Co., Div. General Printing Ink Corp., 100 Sixth Ave., New York, N. Y.  
Gevaert Co. of America, Inc., The, 423 W. 55th St., New York, N. Y.  
International Printing Ink Corporation, 75 Varick St., New York, N. Y.  
National Offset Supply Co., St. Louis, Mo.  
Roberts & Porter, Inc., 100 Lafayette St., New York, N. Y., and 402 S. Market St., Chicago, Ill.  
Senefelder Company, Inc., The, 32-34 Greene St., New York, N. Y.

**FOLDING MACHINERY**

Baum, Russell Ernest, 615 Chestnut St., Phila., Pa.  
Dexter Folder Co., 28 W. 23rd St., New York, N. Y.

**GLYCERINE**

Hunt, Philip A., Company, 253 Russell St., Brooklyn, N. Y.—2432 Lakeside Ave., Cleveland, Ohio—1076 W. Division St., Chicago, Ill.  
Pitman, Harold M., Co., 150 Bay St., Jersey City, N. J., and 51st Ave. and 33rd St., Chicago, Ill.

**GRAINING FLINT**

New England Quartz Co. of New York, 450 Seventh Ave., New York, N. Y.  
Senefelder Company, Inc., The, 32-34 Greene St., New York, N. Y.

**GRAINING AND REGRAINING—Zinc, Aluminum, Glass and Multilith Plates**

Chicago Litho Plate Graining Co., 214-16 N. Clinton St., Chicago, Ill.  
Illinois Litho Plate Graining Co., 913-921 W. Van Buren St., Chicago, Ill.  
International Printing Ink Corporation, 75 Varick St., New York, N. Y.  
Lithographic Plate Graining Co., 41 Box St., Brooklyn, N. Y.  
Maddox Lithoplate Graining Corp., 503 S. Jefferson St., Chicago, Ill.  
McKenna, James J., 1015 Callowhill St., Phila., Pa.  
National Offset Supply Co., 613 N. Broadway, St. Louis, Mo.  
Photo Litho Plate Graining Co., Inc., 1207 S. Highland St., Baltimore, Md.  
Reliable Lithographic Plate Co., Inc., 17 Vandewater St., New York, N. Y.  
Senefelder Company, Inc., The, 32-34 Greene St., New York, N. Y.  
Western Litho Plate & Supply Co., 1019 Souland St., St. Louis, Mo.

**GRAINING MACHINES**

Fritsche, R., 145 Hudson St., New York, N. Y.  
Hoe, R., & Co., Inc., 910 E. 138th St., at East River, New York, N. Y.  
McKinley Litho Supply Co., 1600 John St., Cincinnati, O.  
Zarkin Machine Co., 335 E. 27th St., New York, N. Y.



## Sales Management

(Continued from page 35)

whether they be a few or twenty in number. He is apt to belittle the work of his men and point with pride to the volume of business he, himself, controls.

Now, how is such business secured? Due to the fact that some customers prefer to deal with the head of a business? On account of entertaining customers in so lavish a fashion as to be beyond the resources of a salesman? Due to the fact that he "sharpens his pencil" for a pet account? Or because of his intimate knowledge of what goes on in the plant, is able to shade prices—to accept an order which can go on a press that would otherwise remain idle?

And, to conclude this installment, let me speak to the ambitious salesman who reads these articles:


Were you completely an extrovert, you would not read this publication at all. The chances are, the salesmen of your company who bring in the greatest volume of business are true extroverts. As a matter of fact, the middle class between extrovert and introvert constitutes the majority of people. You are in that class. As such, you can develop yourself to the point of qualifying for the position of sales manager.

Much depends upon your leisure hours and what you do with them. It is necessary to devote regular periods for study. In addition, you can keep orderly records of your calls, sales, sales-talks, plans, etc. Review such records. Make every selling minute count. Devise new ways and means of selling. If you sell more through such means, write up a detailed bulletin, and turn this in to your employer.

I know of one salesman who used his brains. He determined to become the sales manager of his company. First of all, he became sales manager of himself. Drove himself. Did not spare himself. His sales mounted, and so did his commissions. Thereupon he secured permission from the president of his company to take up an apprentice, a cub salesman, to whom he paid a small salary out of his own earnings. He carefully selected this apprentice, who did not make good. He exercised greater care in the selection of a second one, and then a third. The fourth proved to be all right. Meanwhile, he had a little experience in selecting men. He had the fun and the responsibility of directing the young man.

The president of the company, when the proposition was broached to him, agreed because he wanted to observe the experiment himself. The fourth apprentice, when able to stand upon his own feet, was made a junior member of the regular sales staff. The president saw to it that the salesman-instructor was reimbursed for his outlay in salaries; and he was given cub after cub to take under his wing; then he became assistant sales manager, in charge of a junior sales staff; and several years later was promoted to the post of sales manager.

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An EGGSACT printing surface is practically free of impurities and insoluble matter, whereas ordinary egg albumen produces large surface cracks and minute fractures, due to presence of natural impurities and insoluble matter. An EGGSACT coated plate prints clear-edge impressions of the halftone dots... sensitize your plates with EGGSACT.

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Transfer and Press Plates of highest quality made with our special "Protalbin" process. Line — Halftone — Black and color plates.

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Pitman, Harold M., Co., 150 Bay St., Jersey City, N. J., and 51st Ave. and 33rd St., Chicago, Ill.

Senefelder Company, Inc., The, 32-34 Greene St., New York, N. Y.

## HAND ROLLERS

Roberts & Porter, Inc., 100 Lafayette St., New York, N. Y.

Senefelder Company, Inc., The, 32-34 Greene St., New York, N. Y.

Siebold, Inc., J. H. & G. B., 47 Watts St., New York, N. Y.

## HUMIDIFICATION

Advance Mfg. Co., Inc., Louisville, Ky.

Carrier Engineering Co., 850 Frelinghuysen Ave., Newark, N. J.

Lorenz & Co., Inc., Louis, Rose & Duane Sts., New York, N. Y.

Southworth Machine Co., 30 Warren Ave., Portland, Maine.

## HYDROQUINONE

Hunt, Philip A., Company, 253 Russell St., Brooklyn, N. Y.—2432 Lakeside Ave., Cleveland, Ohio—1076 W. Division St., Chicago, Ill.

Mallinkrodt Chemical Works, 3600 N. 2nd St., St. Louis, Mo.

Norman Willets Co., 318 W. Washington St., Chicago, Ill.

Senefelder Company, Inc., The, 32-34 Greene St., New York, N. Y.

## INK COMPOUNDS

Indiana Chemical & Mfg. Company, Indianapolis, New York City, Chicago.

## INKS

Acheson Ink Co., Inc., 142 Skillen St., Buffalo, N. Y.

American Printing Ink Co., Div. General Printing Ink Corp., 2314 W. Kinzie St., Chicago, Ill.

August Corp., Charles, The, 416 Orleans St., Chicago, Ill.

Bowers Printing Ink Co., 711 W. Lake St., Chicago, Ill.

Braden-Sutphin Ink Co., 1736 E. 22nd St., Cleveland, Ohio

California Ink Co., 545 Sansome St., San Francisco, Calif.

Ceb Printing Ink Co., Chicago, Ill.

Crescent Ink & Color Co. of Penn., 464 N. 5th St., Phila., Pa.

Driscoll, Martin & Co., 610 Federal St., Chicago, Ill.  
Flint Ink Co., Howard, 2545 Scotten Ave., Detroit, Mich.

Fuchs & Lang Mfg. Co., Div. General Printing Ink Corp., 100 Sixth Ave., New York, N. Y.

Gaetjens, Berger & Wirth, Inc., 35 York Street, Brooklyn, N. Y., and 538 S. Clark St., Chicago, Ill.

Herrick Ink Co., Inc., Wm. C., 325 W. 34th St., New York, N. Y.

Huber, Inc., J. M., 460 W. 34th St., New York, N. Y.

International Printing Ink Corp., 75 Varick St., New York, N. Y.

Johnson & Co., Inc., Charles Eneu, 10th & Lombard Sts., Phila., Pa.

Kohl & Madden Printing Ink Co., 731 Plymouth Court, Chicago, Ill.

Levey Co., Inc., Frederick H., 59 Beekman St., New York, N. Y.

Mayer Co., Inc., Robert, 1107 Grand St., Hoboken, N. J.

National Offset Supply Co., St. Louis, Mo.

Prescott Co., H. S., 470 Atlantic Ave., Boston, Mass.

Reed Roller & Supply Co., Inc., 415 Jackson St., San Francisco, Cal.

Roberts, Inc., Lewis, 72 Union St., Newark, N. J.

Roosen Co., H. D., Ft. 20th-21st St., Brooklyn, N. Y.

Schwarm & Jacobus Co., The, 1216 Jackson St., Cincinnati, Ohio

Senefelder Company, Inc., The, 32-34 Greene St., New York, N. Y.

Siebold, Inc., J. H. & G. B., 47 Watts St., New York, N. Y.

Sinclair & Carroll Co., Inc., 591 11th Ave., New York, N. Y.

Sinclair & Valentine Co., Inc., 11-21 St. Clair Pl., New York, N. Y.

Sleight Metallic Ink Companies, Inc., 538 N. Third St., Phila., Pa.

Triangle Ink & Color Co., Inc., 26 Front St., Brooklyn, N. Y. (also Boston, Mass., Baltimore, Md., and St. Louis, Mo.).

Williams Co., Inc., R. S., 257 W. 17th St., New York, N. Y.

Winslow Ink Corp., 124-132 White St., New York, N. Y.

## INK WAX REDUCER (Smoothol Ink Wax)

Smith Co., Francis X., 952 E. 93rd St., Brooklyn, N. Y.

## INSURANCE—Workmen's Compensation

N. Y. Printers & Bookbinders Mutual Insurance Co., 147 Fourth Ave., New York, N. Y.

## LAMPS, ARC

Atlas Electric Devices Co., Inc., 361 W. Superior St., Chicago, Ill.

Gelb Co., Joseph, 250 W. 54th St., New York, N. Y.

## How Salesmen Can Help

(Continued from page 25)

Recently it was reported to us by a credit department of one concern that their salesman when calling on the debtor overheard a conversation on the part of a collector regarding the payment of a past due bill. As a result of this information being conveyed to the credit department of his concern, a substantial shipment was stopped and a further check-up indicated that the concern was past due in the trade. Shortly thereafter this company was in the hands of a receiver.

A salesman, when calling on a new prospective customer and after obtaining an order, should not hesitate to obtain full information concerning the make-up of the concern. In other words, if the customer is a partnership, secure the names of the partners; if a corporation, make note of same; and if an individual is using a trade name, the name of this individual.

It has been my experience that in many instances where orders are taken by salesmen, nobody knows who the owners are. The salesman may very well say that it is up to the credit department to get that information, but it has been my experience that the proper time to get this information is when the salesman is getting the order. Then the buyer is in a receptive mood, and readily hands out the desired information. Failure to obtain this information may frequently cause the loss of a substantial order when the credit department endeavors to get the information after the order has been accepted. This may seem foreign to a salesman's job, but experience has shown that it is often impossible to ascertain the true owners of a business thru regular business channels. Very often our large reporting agencies are unable to get the correct information as to the owners of a business.

By way of summary, every salesman must remember, when he solicits business for his firm, that he is an important cog in the wheel of his firm's organization. Merely taking an order without being vitally interested in whether the bill will be paid does more harm than good. He must take advantage of everything that transpires about him when he calls on a customer and report back promptly to his credit department any suspicious word, act or deed, however insignificant it may appear to him, so that the credit department may have before it every bit of information necessary in order to pass properly upon the customer's right to credit.

### Huber Moves to Larger Quarters

J. M. Huber, Inc., printing ink manufacturers, moved both their office and factory as of January 1 from 435 West Ontario Street to larger quarters at 1850 South Kostner Avenue, Chicago.

JANUARY 1938

## ILFORD

### PANCHROMATIC DRY PLATES

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Abstracts of important current articles, patents, and books, compiled by the Research Department of the Lithographic Technical Foundation, Inc. These abstracts represent statements made by the authors of articles abstracted, and do not express the opinions of the abstracters or of the Research Department. Mimeographed lists have been prepared of (1) periodicals abstracted by the Department of Lithographic Research, and (2) books of interest to lithographers. Either list may be obtained for six cents, or both for ten cents (in stamps). Address the Department of Lithographic Research, University of Cincinnati, Cincinnati, Ohio.

### Photography and Color Correction

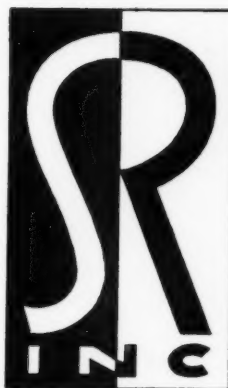
**Stripping Litho Negatives—Many Ways of Doing It.** A. H. Reiser. *Lithographers' Journal*, 22, No. 9, Nov. 1937, p. 344. The operations involved in stripping film and glass negatives are described in detail. Precautions to be observed in positioning the negative and the relative advantages of glass and film negatives are discussed.

**"Etching" the Negative.** A. E. Field. *Process Engraver's Monthly*, 44, No. 527, Nov. 1937, p. 369. An effect equivalent to fine etching may be obtained on negatives quickly and easily by exposing as usual, and after developing and fixing the image, converting the latter to a "kata-positive." Any retouching required is carried out mainly by "stopping-out varnish" and chemical reduction, and then the plate is cleaned and reconverted to a negative for metal printing. Various applications of the method are discussed.

**The Lumitron Light-Measuring Meter.** C. E. Dunn. *Share Your Knowledge Review*, 18, No. 11, Nov. 1937, pp. 19-20. A brief discussion of the Lumitron and its use in exact control of photographic exposures.

**Color Photography and Printing.** D. A. Spencer. Reprinted from the *Year Book of the London School of Printing* (?) by *Plate Maker's Criterion*, 39, pp. 97-101, 113-17, 129-33, 148-9, 163-5, 177-80, and by *American Photo-Engraver*, 29, pp. 631-5, 711-5, 792-5, 935-6, 1022-4 (1937). The principles underlying color photography are explained in simple terms and the following processes are described: Lumiere, Autochrome, Agfa, Dufaycolor, and Finlay. The Vivex process is described in detail, and its applications to gravure, photolitho, and collotype are discussed.

**The Elimination of the Reseau Pattern from Color Separation Negatives from Dufaycolor Transparencies.** F. J. Tritton. *British Journal of Photography*, 84, No. 4032, Aug. 1937, pp. 513-4. *Process Engraver's Monthly*, 44, No. 525, Sept. 1937, pp. 297-8. The elimina-



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tion of the reseau pattern from color separation negatives can be effected by (1) making color separation negatives in the usual way, but using a very small stop, e.g. f:45 to f:55, the exposure time being increased in proportion; (2) throwing the image just sufficiently out of focus; or (3) making screen negatives direct from the transparency. In the third method the image must not be enlarged enough to permit the reseau pattern to clash with the half-tone screen. The first method results in complete elimination, but cannot be used when making small screen negatives. The article is illustrated by photomicrographs. (An abridgment of this article appears in *Modern Lithographer and Offset Printer*, 33, No. 11, Nov. 1937, p. 227.)

**Color Photography by Kodachrome and Agfacolor.** M. Leeden. *Modern Lithographer and Offset Printer*, 33, No. 10, Oct. 1937, pp. 203-4. The author discusses the use of Kodachrome and of Agfacolor film transparencies as originals for reproduction by letterpress and photo-offset. The absence of screen pattern makes it possible to enlarge these miniature film images, if sharp, to relatively large size. It is inadvisable to attempt to enlarge and to make half-tone negatives in the same step, hence the color separation negatives are made on soft contrast panchromatic plates. The negatives should be carefully balanced for exposure, and the transparencies should be made on slow ordinary plates. If the final stage is to be a half-tone transparency, for positive reversal, or deep-etching, the color-separation negatives may be retouched and enlarged direct. Various suggestions are given for determining the suitability of a miniature transparency for reproduction.

**The Blue Filter Negative.** G. Geoghegan. *Process Engraver's Monthly*, 44, No. 527, Nov. 1937, p. 377. The avoidance of harshness and of too great contrast in the blue filter negative is important, if the yellow is to print satisfactorily. By keeping the other two plates soft and delicate, fully exposed but developed to a low "gamma," the short range of the yellow printer can be utilized. Under these conditions the yellow printer will not block up and the effect will be much more pleasing than is usually the case.

## Equipment and Materials

**Ruled Screens.** H. Eckerlin. *British Patent* No. 471,703 (Jan. 2, 1936). In the process of producing ruled screens for photo-mechanical or optical purposes by applying a lead sulfide layer to a glass plate and ruling through this layer, a second layer consisting of a resist varnish such as is used in making ruled etched glass screens, e.g. wax and asphaltum solution, is applied to the lead sulfide layer before ruling and, after ruling, any traces of lead sulfide remaining in the ruled parts are re-

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moved by a solvent such as ferric chloride, the varnish layer being finally removed by a solvent such as alcohol or benzene.

**Research Needed in Press-Plate Metals.** A. H. Reiser. *National Lithographer*, 44, No. 12, Dec. 1937, pp. 19-20. Special studies of the metals used in lithographic plates are recommended. The quality of the finished plates depends in part upon the amount and kind of impurities present in the metal, and upon the conditions, particularly the temperature, which the metal has encountered in its manufacture. The effects of various impurities on zinc and aluminum for litho plates have received little attention.

**Dampening Mechanism for Printing Presses.** B. D. Stevens. *U. S. Patent* No. 2,101,202 (Dec. 7, 1937). In a dampening device, a distributing roller, a movable moisture absorbing medium in contact with said roller, said medium having movement in one direction only from a source of liquid supply to a point of take-up, and means directing a blast of air against said medium in advance of its contact with said roller.

## Paper and Ink

**Printing Processes.** A. H. Stevens. *British Patent* No. 468,233 (Jan. 2, 1936). Printing on paper, cardboard, transparent cellulosic material and other materials, is effected with an ink consisting of a pigment and a colloid, dissolved in a non-volatile solvent. The ink is then quickly set by treating the print with a diluent for the solvent of the colloid, which is a non-solvent of the colloid. This will render the solvent incapable of retaining the colloid in solution, so that the colloid is precipitated upon the printed article. Suitable inks which may be set by dipping the printed matter into molten paraffin wax, at a temperature below the boiling point of the solvent of the colloid, are: (1) 14 parts by weight of carbon black, 16 parts of  $\frac{1}{2}$  second nitrocellulose and 62 parts of dimethyl phthalate; and (2) 25 parts iron blue, 15 parts  $\frac{1}{2}$  second nitrocellulose and 70 parts dimethyl phthalate. Other high boiling nitrocellulose solvents such as diethyl, dibutyl, or diamyl phthalate, dimethyl, diethyl, or dibutyl tartrate, triacetin, benzyl alcohol, ethyl benzoate, or tricresyl phosphate may be used instead of dimethyl phthalate.

**Printing Processes.** A. H. Stevens. *British Patent* No. 468,384 (Jan. 2, 1936). A printing process which provides for a rapid setting of the ink so as to prevent set-off consists in printing with an ink containing a colloid and a solvent therefor, and then damping the sheet with a liquid which is a non-solvent for the colloid and which will render the solvent incapable of retaining the colloid in solution so that the colloid is precipitated on to the sheet. Two examples of inks which can be set by the application

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Ostrander-Seymour Co., The, 1870 S. 54th Ave., Cicero Station, Chicago, Ill.  
Pitman, Harold M., Co., 150 Bay St., Jersey City, N. J., and 51st Ave. and 33rd St., Chicago, Ill.  
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Levess, Herbert H., C. P. A., 360 W. 23rd St., New York, N. Y.  
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Monsen, Thormod and Son, Inc., 730 N. Franklin St., Chicago, Ill.  
New York Type Transfer Service, 561 Broadway, New York, N. Y.

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International Printing Ink Corporation, 75 Varick St., New York, N. Y.  
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Senefelder Company, Inc., The, 32-34 Greene St., New York, N. Y.

of water, suitably as a jet of steam, to the printed sheets are: (1) 38 parts by weight of diethyleneglycol, 38 parts of rosin, 4 parts of triethanolamine, 16 parts of carbon black and 4 parts of milori blue, and (2) 25 parts of diethylene-glycomonoethyletheracetate, 50 parts of chrome yellow and 5 parts of 3/20th second nitrocellulose.

**Preventing Offset.** F. B. Dehn. *British Patent* No. 467,903 (Dec. 23, 1935). To prevent offset from freshly printed sheets, the sheets are provided over their entire surface with a coating of a substantially transparent powder. The powder is preferably of medium fineness and may be applied by sprinkling or spraying. A liquid mist may be directed on to the powder as it falls on to the sheets to prevent its dispersion. Suitable powders are cornstarch, rice, glucose, gelatine, natural and synthetic resins and crystalline sodium chloride.

## General

**Communication by Printing and Photography.** Anon. *National Lithographer*, 44, No. 12, Dec. 1937, pp. 16-8. This article consists of excerpts from the report of A. E. Giegengack, Public Printer, as a part of the report of the U. S. National Resources Committee on "Technological Trends and National Policy." The complete report is obtainable from the Superintendent of Documents, Washington, D. C. for \$1.00. Mr. Giegengack's article reviews the technological trends in printing and photography with the object of indicating the directions in which technical developments will take place within the next ten to twenty-five years.

**Ink and Inking.** W. N. Misuraca. *National Lithographer*, 44, No. 9, Sept. 1937, p. 51. Factors that affect the delivery of ink to metal sheets by the rubber blanket are: consistency of ink, fountain setting, ink distribution, expanse of color required, plate dampening control, pressure between cylinders, and the temperature and surface properties of the sheets being printed. Each of these factors is discussed in its relation to inking results.

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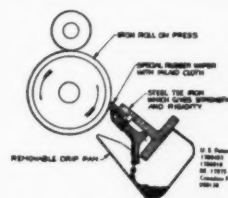
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Sinclair & Carroll Co., Inc., 591, Eleventh Ave., New York, N. Y.

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Wesel Mfg. Co., 468 Fourth Ave., New York, N. Y., and Scranton, Pa.

Zarkin Machine Co., Inc., 355 E. 27th St., New York, N. Y.



**A Milestone in Metal Lithography.** W. N. Misuraca. *National Lithographer*, 44, No. 12, Dec. 1937, pp. 35-6. The application of decorations to fabricated metal containers is at present limited to round cans only. The method of applying the base coat, the colored coatings, and the finishing varnish are outlined. The year's progress in metal printing is summarized, and some suggestions are made for research work in the future.

**What Offset needs to help it; Coordinated Equipment.** W. C. Huebner. *Lithographers' Journal*, 22, No. 8, Nov. 1937, pp. 342, 347. A survey is made of the handicaps faced by lithography, including (1) the need for the use of water on the plate during printing, resulting in variations in ink impression, (2) the number of operations required in pulling impressions from type and rephotographing these, (3) the susceptibility of the offset plate to chemical change, and (4) the difficulty of setting and conditioning the dampening roller surfaces.

**The Planographer—Super "Simplified" Lithography.** Anonymous. *National Lithographer*, 44, No. 10, Oct. 1937, pp. 42, 44, 46. Types of equipment used in planograph shops are described briefly, with reference to the Rotoprint and Multilith presses, the new Multilith offset process duplicator, and the Varityper. The selection of types of work to be taken in, and the planning of the shop for economy and efficiency are discussed.

**The Planographer—The Factor of Speed.** Anonymous. *National Lithographer*, 44, No. 12, Dec. 1937, pp. 22, 56-7. Speed in planographic shops depends upon the establishment and maintenance of a definite routine, and the simplification of operations, as well as upon the production of work for the most part ganged up in negative forms. Standardized procedures are followed, and these, together with certain short cuts are discussed.

**Modern Offset Processes (In German) (Book).** Willy Weichert. Published by Deutscher Drucker, Ernest Boehme, Yorckstrasse 84d, Berlin SW 61, Germany. 3RN in paper, 3.75 RM clothbound. A description is given of the working methods of photolithography, including formulae and a discussion of the means of locating and overcoming difficulties and faults. The Reisacher, Müller, Chromorecta, and Hausleiter processes, the modern application of the albumin process, and the Astra, Efha, and Beka positive processes are described.

### Miscellaneous

**Photomechanical Printing Surfaces.** A. Schlesinger. British Patent No. 470,402 (Feb. 12, 1936). An intaglio plate or cylinder comprises an upper layer which can be etched and of a thickness equal to the maximum depth to which it is desired to etch and an underlayer of a material not attacked by the etching agent, a half-tone screen being used to provide variations in tone values.

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**Photomechanical Printing Surfaces.** V. F. Feeny. *British Patent No. 470,385.* In a process for producing intaglio printing plates, a positive is made from a continuous-tone negative through a half-tone screen spaced from the light sensitive surface at a distance such that minute light dots appear in the light areas on a ground glass screen used for focusing. This positive, in combination with letterpress if desired, is copied on a sensitized metal plate, and the plate is then etched to form ink wells of sufficient depth to allow for the spreading of the ink on the paper during printing.

**The Science of Color.** E. G. Jacobson. *More Business* 2, No. 11, Nov. 1937, pp. 2-14. The Ostwald color system is described in detail for the benefit of the serious worker. Many illustrations show the positions of the various colors in the color solid, and the relationships between them. The laws of harmony have as much to do with art as grammar with poetry or perspective with painting.

**Gravure Developments and Trends.** M. R. Pellissier. *Share Your Knowledge Review* 18, No. 11, Nov. 1937, pp. 20-2. The author evaluates the new equipment, such as the Lumitron, the Eastman densitometer, and photo-composing equipment and new processes, such as the so-called reverse half-tone process, the Rinco process, four-color processes, sheet fed and rotary gravure. The materials now printed by gravure are enumerated.

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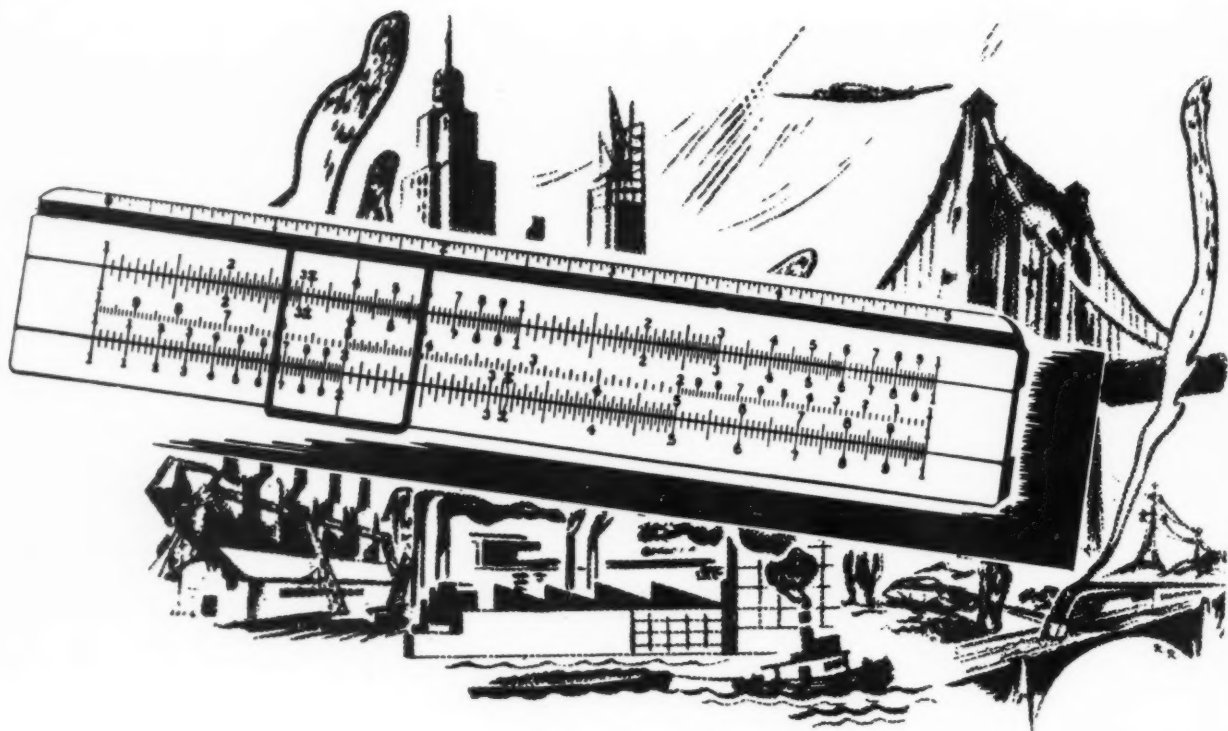
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That's just about tops in baseball. You'd say it couldn't happen -- but it actually has. You'd say there couldn't be an envelope like Silvertone -- but here it is!

And Silvertone -- unassisted -- gives you three perfect outs. There's strength -- and lots of it. There's beauty -- as you see it here. There's adaptability to absolutely any color. That makes it tops in envelopes.

But every fan knows triple plays are pretty rare. You don't see one in a dog's age. So Silvertone scores here -- standing up -- because it isn't rare -- you get it from the distributors listed on the other side.

For free samples of errorless mailing, ask us for the Silvertone Envelope sample kit. It's a hit that clears the bases.

★ **Silvertone** ★

*Manufactured by*

THE STANDARD ENVELOPE MANUFACTURING COMPANY

1600 East 30th Street ★ ★ Cleveland, Ohio



The following distributors  
are **READY TO GO  
TO BAT FOR YOU**  
whenever you give them  
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CLEVELAND, OHIO

DETROIT, MICH.

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KANSAS CITY, MO.

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LYNCHBURG, VA.

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NEWARK, N. J.

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The Arnold-Roberts Company  
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Paper Service, Inc.

Caskie Paper Company

Chicago Paper Company

Dwight Brothers Paper Company  
The Whitaker Paper Company

The Diem & Wing Paper Company

The Standard Envelope Mfg. Co.

The Union Paper & Twine Company

Carpenter Paper Company

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NORFOLK, VA.

Old Dominion Paper Company

OMAHA, NEB.

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ROCHESTER, N. Y.

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SYRACUSE, N. Y.

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Boston

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Dayton

Dallas

New Orleans

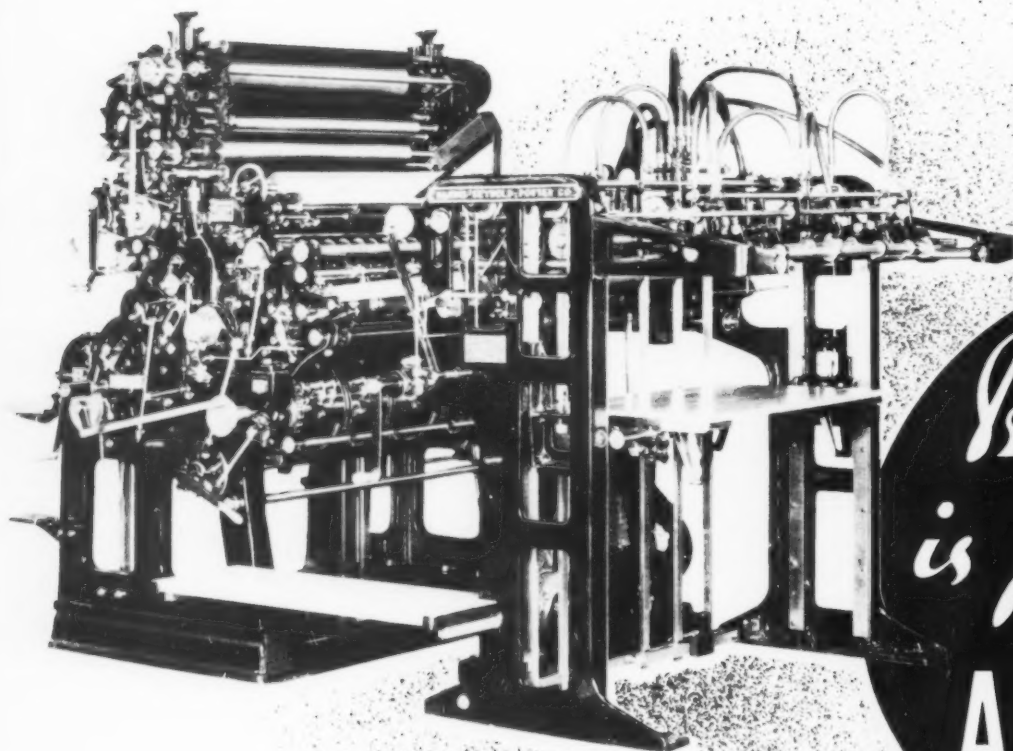
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Los Angeles

San Francisco

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*Because it  
is perfectly*  
**ADAPTED**

● Photo Lithographers everywhere recognize the versatile performance of the Harris EL—22" x 34" Single Color Offset Press. The largest of three press sizes which comprise the Commercial Group—17" x 22", 21" x 28" and 22" x 34", the Harris EL is often referred to as the most popular of the Harris small size presses. The Harris EL is especially adapted for quality black and white and color work and embodies features that have made Harris Offset Presses the choice of the leaders. Speed and quality are combined to effect maximum production in both long and short runs.

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